

AMERICAN GAS ASSOCIATION

Monthly

APRIL
1953



Isn't this a wonderful range? Instant on-off heat. Lights without matches. Swing-out broiler. Easy to clean. And how it cooks!

M-m-m-m!

Nothing
broils food
like the new

automatic Gas ranges!



See why Gas broiling is smokeless! Hold a match over a lighted cigarette. See how the flame "eats up" every wisp of smoke. That's what Gas does.



See! Automatic lighting... without matches, at the turn of a knob. And there's no waiting, no warm-up period, when Gas broils your food.



See! Broiler door shut. Only Gas gives you such even, high, confined heat for perfect broiling. Yet Gas ranges cost less to buy, install and use!

Ah-h-h, that flame-kissed flavor! There's nothing like it! This swing-out broiler, a feature of the new "CP" Florence range, also roasts and barbecues... gives you 2-oven convenience. See all the wonderful features of the brand new automatic Gas ranges at your Gas company or Gas appliance dealer's.

only
Gas



gives you smokeless
broiling plus
flame-kissed flavor

AMERICAN GAS ASSOCIATION

GAS—the modern fuel for automatic cooking...refrigeration...water-heating...house-heating...air-conditioning...clothes-drying...Incineration.

● A. G. A. consumer advertising in April issues of national magazines features a gas broiler and gas broiled food ●



With speed and precision, a giant ditching machine gnaws out a trench for a 26 inch Texas Gas Transmission Corp. pipeline

EVER think how the human desire for cleanliness sells gas and gas appliances?

Gas incinerators are selling handsomely, where utilities give them deserved promotion, for home owners prefer quick, tidy trash disposal to the smelly old garbage pail.

Automatic gas clothes dryers rose steadily in sales since 1949, while ironers and washers declined. Why? Because housewives like their saving of time and drudgery and their kindness to textiles, in the daily tussle with dirty laundry.

Sales of gas hot water heaters are due largely to an outstanding ability to produce plenty of hot water quickly and economically, to meet the desire for cleanliness.

The call for gas space heating reflects the appreciation of its convenience and of its freedom from ashes and oil film.

Pan bottoms stay clean over the burners of speedy, thrifty, exactly controllable modern gas ranges.

Clean? The word is woven through the entire fabric of the gas industry. And it appears in one final, cardinal position: The utility and the dealer who give gas and gas appliances the promotion they deserve will clean up a tidy profit!

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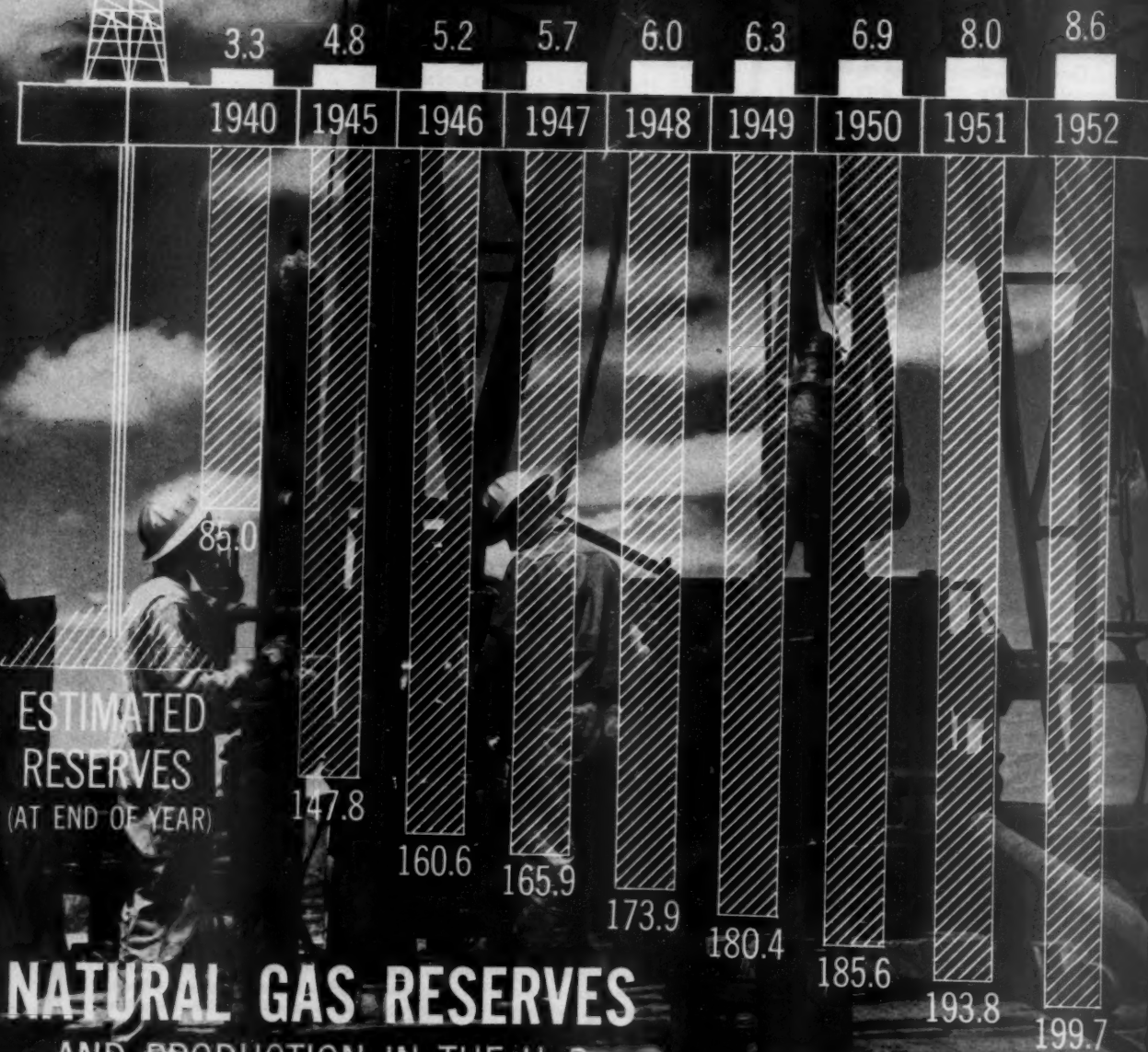
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ANNUAL PRODUCTION



NATURAL GAS RESERVES

AND PRODUCTION IN THE U. S.

(IN TRILLION CUBIC FEET)

Gas reserves, production up

Proved recoverable natural gas reserves in the United States on December 31, 1952, totaled 199.7 trillion cubic feet, an increase of 5.9 trillion cubic feet over reserves of 193.8 trillion cubic feet a year earlier, it has been announced in a joint report of the Committee on Reserves of the American Gas Association and the American Petroleum Institute. These reserves achieved a new record high level after an all-time high production of 8.6 trillion cubic feet of natural gas used in 1952. The previous record production was 8.0 trillion cubic feet of natural gas in 1951.

The A. G. A. Committee on Natural Gas Reserves, of which N. C. McGowen, United Gas Corp., is chairman, estimated proved recoverable reserves of natural gas liquids on December 31, 1952, also had risen to a record level of almost 5.0 billion barrels. This compares with a previous high of 4.72 billion barrels at the end of 1951. This increase was registered despite a record production of 285 million barrels of natural gas liquids last year.

Crude oil reserves on December 31, 1952 totaled approximately 28.0 billion barrels, compared with 27.47 billion barrels at the end of 1951. The total estimated liquid hydrocarbon reserves on December 31, 1952, were 32.96 billion barrels, compared with 32.19 billion barrels a year earlier.

The discovery of 5.4 trillion cubic feet of new natural gas reserves in 1952 as compared with 3.0 trillion of reserves in new fields brought in during 1951, emphasizes the important increase in exploration activities resulting from the ever-increasing demand for natural gas. Further exploration and drilling in existing fields added another 8.9 trillion cubic feet to the nation's proved recoverable reserves of natural gas. Nearly 199 billion cubic feet of natural gas were added to estimated reserves in underground storage at the end of 1952.

Proved reserves of natural gas and natural gas liquids made substantial gains last year, in spite of increased production. New areas were reached by the nation's pipeline systems and further expansions are contemplated in 1953. The following tabulation of natural gas reserves and production proves that the nation's supply of natural gas is ample to meet all demands for many years to come.

Table 3 is a summary of the committee's annual estimates of proved natural gas reserves for the past eight years, reflecting the changes in the natural gas reserve position in the United States during each of the seven years since December 31, 1945. Table 4 shows the proved natural gas liquids reserves of the United States for the last seven years and the changes which have taken place in these reserves annually since the first estimate was made as of December 31, 1946.

In order to arrive at an estimate of the total proved liquid hydrocarbon reserves in the United States, the reserves of natural gas liquids shown in Table 2 have been added to the reserves of crude oil estimated by the Committee on Petroleum Reserves of the American Petroleum Institute. The total liquid hydrocarbon reserves are shown in Table 4 of the report of the Committee on Petroleum Reserves.

The committee has continued the practice begun in the report of December 31, 1948 of reporting the volume of gas in storage in underground reservoirs. The "stored gas" is considered to be the gas which has been transferred from its original location in a gas and/or oil field to another natural underground reservoir for the primary purposes of conservation, fuller utilization of pipeline capacities and more effective delivery to markets. The "stored gas" reserve is the quantity placed in a natural storage reservoir and not yet removed. Any recoverable native gas which may have been in the underground storage reservoirs when injection was begun and has not yet been produced is not included in the underground storage figures, but is classified and listed in its proper category. Adjustments in, withdrawals from, or additions to storage are included in the figures shown under the heading "Net Change in Underground Storage." This is distinguished from "net production" which is gross withdrawals less gas injected into producing reservoirs: changes in underground storage are excluded.

The committee has pointed out again that it is often not possible to estimate the total reserves of a field in the year of its discovery. Satisfactory estimates can be made only after there has been sufficient drilling in the field and, in some cases, adequate production history. For these reasons, the reserves listed as discovered during any current year must be considered only as the reserves indicated by the drilling in that year. The estimated reserves of the new fields and pools will be revised in future reports in the light of later developments and shown as "Extensions and Revisions."

The procedure followed in estimating and assembling the proved reserve figures were the same as those used in the past reports. Proved reserves may be in either the drilled or undrilled portion of a given field. Where the undrilled areas are considered proved, they are so related to the developed acreage and to the known field geology and structure that their productive ability is considered assured. Proved recoverable reserves of natural gas are the reserves estimated to be producible under present operating practices. Since the estimates are made by fields, the recovery factors or abandonment pressures used in the calculations were governed by the op-

Experts—members and alternates of the A. G. A. Natural Gas Reserves Committee—gathered at Colorado Springs in preparing the seventh annual report of recoverable reserves. Meeting together were, left to right, seated: R. E. Megill; E. D. Pressler; O. E. Zwanzig, secretary; L. H. Meltzer, acting chairman; R. M. Bauer; B. B. Gibbs; C. E. Turner; J. A. Vary and C. C. Hoffman. Standing, left to right: James Royds; M. F. Shaffer; W. F. Burke; D. S. Colby; J. D. Mahoney; M. Miller; F. S. Lott and J. Hanley



erating conditions in each individual field. Proved recoverable reserves of natural gas liquids are those contained in recoverable gas reserves.

For purposes of developing these reserve estimates, natural gas liquids are defined as those hydrocarbon liquids that are gaseous in the reservoir but are obtainable by condensation or absorption. Natural gasoline, condensate and liquefied petroleum gases fall in this category. In order to prevent misunderstanding of this term it is further amplified as follows: the natural gas liquids are those heavier hydrocarbon components of the natural gas which may be removed and reduced to the liquid state by various processes. These processes usu-

ally take place in field separators, scrubbers, gasoline plants or cycling plants. The liquids so collected and the products made from them in some of the modern plants are known by a variety of names but they have been grouped together here under the general heading "Natural Gas Liquids."

The estimates presented in this seventh annual report incorporate the results of careful detailed studies of many hundreds of fields and pools throughout the United States. Their preparation has required the help and active cooperation of specially trained geologists and engineers familiar with the developments in all producing areas throughout the country. (Additional tables, pages 42 and 43)



NATURAL GAS

	December 31, 1952	December 31, 1951 (Thousands of cubic feet)	Increase 1952 Over 1951
Reserves, Natural Gas	199,716,225,000	193,811,500,000	5,904,725,000
	1952	1951	Increase 1952 Over 1951
Production, Natural Gas	8,639,638,000	7,966,941,000	672,697,000

The production figures for 1952 are net after deducting the amount of gas returned to reservoirs for cycling and pressure maintenance.

LIQUID HYDROCARBON RESERVES

RESERVES	December 31, 1952	December 31, 1951 (Barrels of 42 gallons)	Increase 1952 Over 1951
Crude Oil	27,960,554,000	27,468,031,000	492,523,000
Natural Gas Liquids	4,996,651,000	4,724,602,000	272,049,000
Total Liquid Hydrocarbons	32,957,205,000	32,192,633,000	764,572,000
PRODUCTION	1952	1951	Increase 1952 Over 1951
Crude Oil	2,256,765,000	2,214,321,000	42,444,000
Natural Gas Liquids	284,789,000	267,052,000	17,737,000
Total Liquid Hydrocarbons	2,541,554,000	2,481,373,000	60,181,000



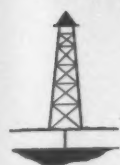
NATURAL GAS RESERVES

	(Thousands of Cubic Feet)
Total proved reserves as of December 31, 1951	193,811,500,000
Extensions and revisions of previous estimate	8,934,470,000
New reserves discovered in 1952	5,411,043,000
Net changes in "stored gas" during 1952	198,850,000
Total proved reserves added and net changes in "stored gas" during 1952	14,544,363,000
Total proved reserves as of December 31, 1951 and additions during 1952	208,355,863,000
Deduct production during 1952	8,639,638,000
Total proved reserves of natural gas as of December 31, 1952	199,716,225,000

Reserves data are shown by states in Table 1.

TABLE 1
ESTIMATED PROVED RECOVERABLE RESERVES OF NATURAL GAS IN THE UNITED STATES

(Millions of Cubic Feet—14.65 psia, at 60 Deg. F)



	Changes in Reserves During 1952					Reserves as of December 31, 1952 ^a				
	Reserves as of Dec. 31, 1951 (1)	Extensions and Revisions ^b (2)	Discoveries of New Fields and New Pools in Old Fields ^c (3)	Net Change in Under- ground Storage ^c (4)	Net Production ^d (5)	Total (Columns 7 + 8 + 9 + 10, also Columns 1 + 2 + 3 + 4 less Column 5) (6)	Non- Associated ^e (7)	Associated ^f (8)	Dissolved ^g (9)	Under- ground Storage ^h (10)
Arkansas	931,314	91,070	3,020	630	41,452	984,582	528,029	138,462	315,465	2,626
California ⁱ	9,482,445	269,427	65,938	(-1,925)	475,863	9,340,022	2,516,241	2,156,918	4,653,946	12,917
Colorado	1,138,451	31,851	42,181	0	48,234	1,164,249	524,113	39,286	600,850	0
Illinois	227,133	14,750	1,768	0	32,000	211,651	4,251	5,000	202,400	0
Indiana	30,807	9,990	1,472	1,790	7,345	36,714	3,552	3,100	27,225	2,837
Kansas	13,457,498	1,167,567	21,912	1,110	454,522	14,193,565	13,707,255	132,627	320,946	32,737
Kentucky	1,325,588	46,696	11,360	2,379	72,500	1,313,523	1,240,879	0	59,080	13,564
Louisiana ⁱ	29,005,031	2,176,296	1,540,159	0	1,269,872	31,451,614	25,000,197	4,185,548	2,265,869	0
Michigan	203,025	3,296	18,612	40,498	10,888	254,543	132,752	0	38,645	83,146
Mississippi	2,439,969	21,771	118,224	417	216,321	2,364,060	1,700,671	401,453	261,479	457
Montana	828,107	12,885	17,236	2,051	32,676	827,603	697,705	36,593	83,691	9,614
Nebraska	95,810	1,264	3,964	0	7,080	93,958	64,895	7,701	21,362	0
New Mexico	11,589,979	2,669,335	217,160	4,458	442,043	14,038,889	10,653,682	2,155,593	1,209,904	19,710
New York	66,793	200	0	5,047	3,400	68,640	47,502	0	468	20,670
Ohio	689,135	32,607	8,275	33,966	32,500	731,483	561,537	0	31,470	138,476
Oklahoma	11,804,337	547,606	199,997	13,781	800,892	11,764,829	7,273,114	951,250	3,491,935	48,530
Pennsylvania	619,455	36,595	91,950	56,385	94,800	709,585	515,866	0	36,470	157,249
Texas ⁱ	105,653,229	1,459,565	2,950,264	13	4,330,308	105,732,763	69,209,845	20,462,637	16,058,448	1,833
Utah	95,845	188,045	2,802	0	3,280	283,412	265,105	0	18,307	0
West Virginia	1,671,499	108,315	23,400	26,256	169,400	1,660,070	1,470,546	0	73,285	116,239
Wyoming	2,340,298	35,660	21,379	11,994	88,207	2,321,124	1,455,746	350,249	502,443	12,686
Miscellaneous ^a	115,752	9,679	49,970	0	6,055	169,346	66,682	0	102,664	0
Total	193,811,500	8,934,470	5,411,043	198,850	8,639,638	199,716,225	137,640,165	31,026,417	30,376,352	673,291

^a Includes Alabama, Florida, Maryland, Missouri, North Dakota and Virginia.

^b Excludes gas loss due to natural gas liquids recovery.

^c The net difference between gas stored in and gas withdrawn from underground storage reservoirs, inclusive of adjustments.

^d Net production equals gross withdrawals less gas injected into underground reservoirs. Changes in underground storage and gas loss due to natural gas liquids recovery are excluded. December production estimated

occasionally.

^e Non-associated gas is free gas not in contact with crude oil in the reservoirs.

^f Associated gas is free gas in contact with crude oil in the reservoirs.

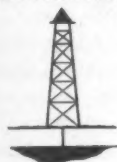
^g Dissolved gas is gas in solution with crude oil in the reservoirs.

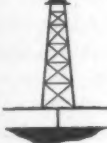
^h Net gas placed in underground reservoirs for storage purposes only.

ⁱ Includes off-shore reserves.

TABLE 2
ESTIMATED PROVED RECOVERABLE RESERVES OF NATURAL GAS LIQUIDS IN THE UNITED STATES^a

(Thousands of Barrels of 42 U. S. Gallons)





	Changes in Reserves During 1952				Total (Columns 6 + 7 + 8, also Columns 1 + 2 + 3 Less Column 4) (5)	Reserves as of December 31, 1952		
	Reserves as of Dec. 31, 1951 (1)	Extensions and Revisions (2)	Discoveries of New Fields and New Pools in Old Fields (3)	Net Production ^b (4)		Non- Associated (6)	Associated (7)	Dissolved (8)
Arkansas	51,050	1,013	91	1,283	50,871	29,914	6,762	14,195
California ^d	329,316	21,229	1,475	29,513	322,507	0	108,720	213,787
Colorado	11,910	(-14)	0	557	11,339	299	0	11,040
Illinois	24,572	(-1907)	9	3,428	20,246	21	25	20,200
Indiana	149	50	7	37	169	18	15	136
Kansas	159,569	14,666	260	6,268	168,227	163,505	1,513	3,209
Kentucky	10,478	311	156	1,787	9,158	9,158 ^e	0	0
Louisiana ^a	684,773	48,322	17,991	37,420	713,666	567,311	98,413	47,942
Michigan	1,009	(-439)	94	81	583	196	0	387
Mississippi	52,290	998	2,056	4,413	50,931	22,445	23,779	4,707
Montana	3,341	0	0	212	3,129	3,129	0	0
Nebraska	2,586	221	85	176	2,716	2,194	415	107
New Mexico	130,619	29,689	1,347	10,112	151,543	59,636	31,127	60,780
Ohio	1,710	94	11	37	1,778	1,778 ^e	0	0
Oklahoma	311,125	(-14,717)	4,970	26,472	284,906	100,438	22,224	162,244
Pennsylvania	2,563	214	107	244	2,640	2,640 ^e	0	0
Texas ^a	2,877,341	350,683	52,437	155,370	3,125,091	1,390,472	459,347	1,275,272
Utah	61	0	0	4	57	57	0	0
West Virginia	23,921	658	220	5,271	19,528	19,528	0	0
Wyoming	45,886	12,948	350	2,094	57,090	38,757	18,333	0
Miscellaneous ^c	333	151	2	10	476	0	0	476
Total	4,724,602	475,170	81,668	284,789	4,996,651	2,411,496	770,673	1,814,482

^a Includes condensate, natural gasoline and liquefied petroleum gas.

^b Natural gas liquids production is credited to the state containing the reserve when recovery is made in other states.

^c Includes Alabama, Florida and North Dakota.

^d Includes off-shore reserves.

^e Not allocated by types but occurring principally in the column shown.



Charm and efficiency keynotes the Tracy New Freedom Gas Kitchen's combination of provincial design tiles and wall coverings with modern, super-convenient Western-Holly built-in gas burners and waist-high oven, Servel gas refrigerator and Hamilton automatic gas clothes dryer



The efficiently arranged baked-on enamel St. Charles cabinets—shell pink in kitchen area, terra cotta in laundry—join the Servel gas refrigerator, Roper automatic gas range and Hamilton gas clothes dryer to make this colorful unit a joy to gourmet and interior decorator alike



Great-grandmother could have spent longer restful hours in this Boston rocker, amid the pleasant color scheme of the warm wood inlay of Mutschler Porta-bilt cabinets and gayly blending wall paper

*Customers write checks for gas appliances
when an alert gas utility coordinates local dealers
and stages a show of the latest kitchens*

Minneapolis promotion accents gas appliances

Seven is a lucky number! At least, that's what Minneapolis Gas Co. kitchen planners are contending these days, as they watch the success of their 1953 Kitchen Cavalcade. Running from January 28 to April 13, the Cavalcade features seven sparkling New Freedom Gas Kitchens.

Directed and coordinated by the utility's kitchen planning department under the leadership of Robert F. Calrow, the promotion is actually the combined effort of more than 100 Minneapolis distributors and dealers. Cabinet and appliance manufacturers competed to cooperate in the important show, which is being visited by thousands from the city and its outlying districts.

Each of the seven kitchens is unique, with its own special advantages. The first features a modern, convenient wood cabinet arrangement by Kitchen Maid; Wallace modern dinette furniture; a Servel gas refrigerator; and a deluxe Maytag gas range.



Varying shades and tones of a single color unify the mist green Kitchen Ma'd wood cabinets and Formica counter top with the marbledized dark green Koroseal plastic floor, providing a striking background for a speedy Maytag gas range and its silent partner, the Servel gas refrigerator



The gay friendliness of the geranium decorative theme enhances the beauty of the efficient, gleaming white Youngstown cabinets and Jet-Power dishwasher, the fully automatic Magic Chef gas range, Servel gas refrigerator, General gas water heater and Bryant gas clothes dryer

in that
wood in
paper

apes, if she had had this compact kitchen with its work-saving ar-
rangement, its Hardwick automatic gas range and Servel gas re-
frigerator and, in the adjacent laundry, its Whirlpool gas dryer

From the Koroseal plastic flooring, which will never need waxing, to the modern corner sink and convenient serving peninsula, this kitchen is cued to good taste plus efficiency.

A sparkling Youngstown kitchen is truly a "spring tonic" to winter-weary Minnesotans. Presented by Minneapolis' Forster Distributing Co., the U-shaped room has a geranium motif with sky blue walls. Gas appliances complementing the Youngstown cabinets are a Magic Chef gas range; a Servel refrigerator; a Bryant automatic gas clothes dryer and a General gas water heater.

Colorful fruits, vegetables and flowers are accented by pink walls and light gray steel cabinets in the Cavalcade's Geneva New Freedom Gas Kitchen. A natural cork floor, coated with plastic for easy cleaning, has been designed for day-in-day-out comfort for the housewife who spends much time on her feet. A double-bowl corner sink placed between a Roper gas range and Servel gas refrigerator is another beautiful and effi-

cient feature.

Quaint and colonial—complete with grandmother's rocking chair and antique copper hardware. But that's as far as the nostalgia goes in the fourth New Freedom Gas Kitchen. From the Porta-bilt maple cabinets to the modern ventilating hood over the gas range, the kitchen is "1953 all the way."

Featured appliances are a Hardwick automatic gas range; a Servel gas refrigerator; a Whirlpool gas dryer and automatic washer. The warm wood tones blend with a green and brown foliage wallpaper, green Vinyl floor tile and green linen Formica counters. Bright orange cafe curtains spark the entire display.

Neither clinical nor sentimental was the Tracy New Freedom Gas Kitchen. Planned for a basic U-shaped room, the kitchen featured Western-Holly built-in gas burners and a waist-high oven, placed independently for utmost flexibility.

Other important gas appliances are

the Hamilton automatic gas clothes dryer, and Servel refrigerator. All wall surfaces in this kitchen are ceramic tile-covered in cocoa brown, yellow and white. Flexible and adaptable, this kitchen is keyed to beauty, but remains sensible and efficient throughout.

St. Charles has planned a kitchen that makes every inch count. A unique color scheme—shell pink and terra cotta, sparked by a provincial design wallpaper—strikes the eye. But there are more lasting features to this kitchen, including special stainless steel cabinets and accessories, a movable table with maple cutting board, and a steel insert next to the range which gives more work space where it's needed most.

And the appliances! The Servel gas refrigerator, the Roper gas range and the Hamilton automatic gas clothes dryer are loyal, silent servants. Thus, efficiency and elegance are combined to result in a truly noteworthy kitchen.

The seventh room, a New Freedom Gas Kitchen by Lyon Metal Products



The all-gas model kitchens installed in six local advertising photographers' studios, through the cooperation of Minneapolis Gas Co. and distributors of nationally advertised kitchen cabinets, provide the subject of a revolving display on the utility's kitchen planning center

Co., features all-steel white cabinets. Shocking pink walls and blue counters complete the color scheme. The kitchen, located on the stage of the Minneapolis Gas Co. auditorium, is the focal point for the bi-weekly "Club Matinee" conducted by home economists for Minneapolis homemakers. Here too, gas appliances—the Roper range, the Servel refrigerator and the Hamilton dryer—star in the show.

These seven kitchens have attracted attention, not only from casual visitors and industry people, but from many schools and adult club groups. The interest has been so keen that regularly scheduled conducted tours have been arranged. In addition, University of Minnesota students in home planning and furnishing and home equipment classes are required to study the display as part of the term's assignment.

Relief devices for water heaters is meeting topic

a PAR activity

The progress of research in the selection and use of high temperature cut-off and relief devices for domestic storage water heaters has been reviewed and collated. The material was reviewed at the second meeting of the Inter-Industry Coordinating Committee for Temperature-Pressure Relief Devices for Storage Water Heaters, Cleveland, February 4. Presiding at the meeting was Committee Chairman Robert C. Bryce, who is special assistant to appliance manager, Philadelphia Electric Company.

Representatives of the following na-

tional organizations were in attendance:

American Gas Association; American Society of Mechanical Engineers; American Society of Sanitary Engineers and American Water Works Association. Building Officials Conference of America; Gas Appliance Manufacturers Association; Institute of Boiler and Radiator Manufacturers and National Association of Master Plumbers.

Also present were representatives of: National Board of Boiler and Pressure Vessel Inspectors; National Bureau of Casualty Underwriters; National Bureau of Standards and National Electrical Manufacturers Association. National

Production Authority; National Safety Council and U. S. Department of Commerce, Building Materials Division, National Production Authority.

This committee aims, through the medium of cooperative research, to develop and publish authoritative and factual information on the selection, installation and use of high temperature cut-off and temperature and pressure relief devices on domestic storage water heaters heated by any of the commonly used sources of energy. It is hoped that by making this information generally available, various ordinances and building codes throughout the country can be more or less standardized. In addition, adequate domestic storage water heater protection against potential hazards of excessive water temperature and pressure can be provided.

The research staff of the A. G. A. Laboratories has correlated all previous as well as current research, to aid the committee in its development of information as a basis for reaching common agreement. Potential hazards of overheating have now been evaluated. Data have been gathered on both steam and hot water relieving capacities of spillage type devices, and on proper locations of various devices. Probable effects of water composition, materials of construction, and location of devices on their fidelity of operation will be covered in this work.



Pertinent researches were reviewed at the Inter-Industry Coordinating Committee for Temperature-Pressure Relief for Storage Water Heaters meeting, Cleveland, February 4. Committee Chairman Robert C. Bryce, special assistant to appliance manager, Philadelphia Electric Company, seated far left, presided



Operating Section Vice-Chairman Walter H. Davidson will preside at general sessions



President F. C. Smith will tell of natural gas industry gains from A. G. A. re-organization



A. G. A. Second Vice-President F. M. Banks will discuss landholder-pipeline company relations

Complete Transmission program

An interest-generating, fact-packed series of papers, panels and round table forums will inaugurate the newest of the A. G. A. spring meetings when the first A. G. A. Transmission and Storage Conference is held at the Edgewater Beach Hotel, Chicago, April 30-May 1.

A tightly-knit program has been designed to provide two full working days. During this time conference delegates will have an unparalleled opportunity to hear authoritative discussions of the problems facing transmission and storage companies and of the methods by which such problems can be solved. They will also have the opportunity to voice their own individual or company operating problems, solicit information on possible solutions and reveal how they and their companies have acted to overcome the day-to-day obstacles that arise in their operations.

In developing the conference, the members of the Program Committee, under Chairman Walter H. Davidson, based the selection of topics on their own widespread knowledge of the operations involved in producing, processing, transmitting and storing natural gas. They selected speakers whom they knew to be completely familiar with the subjects assigned to them. As a result, the papers to be presented will

be definitive and the discussions during the round table sessions will elicit opinions and information based upon first-hand, practical operating experiences.

Authoritative speakers

Top-ranking A. G. A. officers will be featured speakers at the two morning general sessions. A. G. A. President Frank C. Smith's address will be of particular importance to the operating personnel of natural gas transmission and storage companies, because it will explain the organizational changes as a result of the adoption of the Association's revised Constitution. Many committees and activities heretofore under the jurisdiction of the former Natural Gas Department are being transferred to the Operating Section. The structure, functions and procedures of this section are being revised and expanded to augment the services and activities it conducts for these companies. A. G. A. Second Vice-President F. M. Banks' address upon relations between pipeliners and the public is also of great importance, because of the spread of the nation's transmission network and the introduction of natural gas into new areas.

Other speakers on the general ses-

sions program will discuss instruments for measurement of water vapor in natural gas; the work of revising the gas portions of the Code for Pressure Piping, ASA B31; causes of brittle fractures in steel; development and operation of an underground gas storage field; the A. G. A. pipeline research program; testing of large diameter orifice tubes; selection and training of engineering personnel; gas turbines and centrifugal compressors; and a report on the expansion in underground storage operations during 1952.

The afternoon sessions will feature panels and round table discussion forums on the subjects of dispatching and communications; gas measurement; pipeline construction and maintenance; underground storage; compressor stations; corrosion; gas processing; and the B31 revision work.

Copies of the advance program for the conference, along with hotel reservation cards and advance registration forms have already been sent to all members of the Association. If they have not already done so, members are urged to make their plans to attend the conference and return the hotel reservation and registration forms as soon as possible.

Safe venting of recessed type gas heaters studied

The increased popularity and use of the recessed wall type of gas heater requires that gas utility companies and installers give careful consideration to the safe venting of this equipment.

The problem involved is to extend the vent connector in the stud space of the wall without building up excessive temperature on adjacent combustible construction. In addition to the fire hazard involved there have been many complaints due to discoloration on papered and painted walls. The problem has been particularly acute in 2 inch \times 4 inch stud wall construction because the available space does not permit conventional round Type B flues to be installed with the necessary clearances.

In an effort to resolve this and other problems relating to the testing and venting recessed heaters a special meeting of representatives of Underwriters' Laboratories, Inc., wall vent manufacturers, heater manufacturers and A.G.A. Laboratories was held on February 26, 1953.

Two actions taken by this group are of particular interest:

1. The Underwriters' Laboratories have agreed to test Type B vents designed for installation in walls of 2 inch \times 4 inch studs on 16 inch centers with a minimum clearance of $\frac{3}{8}$ inch from interior surfaces of wall or partition. A new designation, namely, "Type B-W Gas Vent" will be used to identify approved vents of this type. As a result it will only be necessary to specify the use of "Type B-W Gas Vent" to insure a safe and satisfactory installation in the common 2 inch \times 4 inch wall construction. At the moment two manufacturers have already obtained UL "Type B-W Gas Vent" approval. The approval is restricted to installation in walls or partitions of a single story because to obtain safe temperatures it is necessary to ventilate the space between the two studs at the ceiling level thereby voiding the use of fire stops at that point.

2. Through the appropriate Subcom-

mittee on Approval Requirements action is recommended toward standardization in the construction of header plates for recessed heaters. These metal plates are to be supplied as part of the equipment and will have flue collar dimensions which will conform to standard vent adapters available from vent manufacturers.

In addition consideration will be given to specified use of a solid fire-stop in the heater construction, either at the header plate or at the top of an extended heating section, where such a section is used. In the meantime the manufacturer's literature and applicable local and national codes should be consulted to determine how and where fire-stops should be constructed.

It is believed that the net result of these two actions will eliminate most of the installation problems and customer complaints that arose in the past with recessed type gas heaters.

Prepare TV cooking school films for gas utilities

A series of TV cooking school programs, featuring Dione Lucas, a proved viewer attraction, will soon be available for local sponsorship by gas utilities across the country. On the heels of the success chalked up by Mrs. Lucas in a TV cooking school program backed by Brooklyn (N. Y.) Union Gas Co., Caloric Stove Corp., is producing a series of 26 films of like subject matter. The films are being offered gas utilities on virtually a free-loan basis, for sponsorship on their local television outlets.

Offer of the filmed program to utilities is part of a highly integrated package promotion deal worked up jointly by Caloric and by Arthur B. Modell Television Productions, the organization that produces the Dione Lucas shows. Under this arrangement, each sponsoring utility may have its own advertising copy delivered on film by Mrs. Lucas in the time allotted for commercials.

To promote interest in the series through TV spot announcements, the utility receives, without extra charge, 16 and 35 mm slides and film trailers. Publicity and promotion material is sent regularly to the utility and to the chosen

local television station, with suggestions for special use to increase the size of the program's audience. Regular publicity releases and Dione Lucas special recipes are sent directly to woman's page editors of newspapers in sponsoring utility's area.

Still photographs of Mrs. Lucas and the program in action are furnished the utility for publicity and promotional use as are mats of advertisements promoting the program series.

In order to tie-in with the utility's other activities, special Dione Lucas films will be available for screening by its home service department before various interested groups. This type of personalized group promotion proved to be an invaluable prestige builder and audience recruiter when used by Brooklyn Union. Tying in the TV program with "flesh and blood" group promotional activities of the sponsoring utility, Modell is offering assistance in putting on coordinated local cooking contests, with the possibility of furnishing free prizes for contest winners. All such local cooking contests would be coordinated into a national program with a grand finale cook-off in New York City.

As a further means of personalizing audience interest in the show, Mrs. Lucas will visit the city of each sponsoring utility once a year. During the visit she will give a live auditorium demonstration and add her personal prestige and salesmanship to the utility's promotional plans.

Within the 26½ minute filmed cooking school programs, Mrs. Lucas will emphasize the many benefits of gas cookery. The ranges of the Caloric Stove Corp. will be used exclusively as a demonstrating medium, while gas appliances, only, will be used in the modern kitchen setting. Though not necessarily by brand name, Mrs. Lucas will always refer to these other appliances as "My gas water heater" or "My gas refrigerator."

Through this plan, made possible by Caloric Stove Corp. shouldering the cost of preparing these 26 films of Mrs. Lucas' cooking school program, gas utilities will be able to present local viewers a popular program at little more than the cost of TV station time. The attendant "plus" services will identify it as their own—rather than a syndicated—program, while giving a lift to their other promotional activities.

Rather warns against extension of gas taxes

Texas natural gas producers have been warned by C. P. Rather, president of the Independent Natural Gas Association of America, that the establishment of minimum field prices and "state export taxes" on gas will react to the detriment of the producer.

Incentives for expanding production are imperative if all segments of the natural gas industry are to keep up with the expanding gas market and insure consumers the adequate service to which they are entitled, Mr. Rather stated.

Speaking at the annual meeting of the Texas Independent Producers & Royalty Owners Association, Mr. Rather told members that the many segments of the natural gas industry must work together on this problem to satisfy the nation's gas-consuming public.

The establishment of minimum field prices for natural gas would be a long step toward bringing the industry under government regulation, he said. Competitive bidding for natural gas supplies, he declared, has demonstrated that it is the surest method of raising the field price of this natural resource and thereby offering adequate incentive for development and exploration.

He stated also that it is a misconception on the part of producers and royalty

owners that rate increase applications filed by pipeline companies with the Federal Power Commission are to pay for increased transmission costs.

Of the rate increase applications filed with FPC between January, 1950, and August, 1952, approximately 60 percent of the \$200 million annual rate increase requested "represented reimbursement of higher gas costs to the companies." While this percentage contains some duplications, he said it is nevertheless "somewhat indicative of the extent to which the field price of gas has necessitated the rate increases applied for."

In the case of his own company, Mr. Rather said that in a recent rate increase application filed with FPC amounting to four cents per thousand cubic feet of gas, three and one-half cents was "the direct result of increased cost of gas to us," with only a half-cent requested to meet other increased operating expenses.

He described gathering taxes, compressor horsepower taxes and gas reserves taxes as efforts "to circumvent the constitutional prohibition against a tax on interstate commerce," and said they were actually taxes on exportation of gas to other states.

"Out-of-state markets are largely re-

sponsible for the better prices producers and royalty owners are now receiving for gas," he said, adding that a tax which discourages the free movement of gas to any available market would work to the disadvantage of producers, transmission companies, distributors and consumers, both in distant markets and within the producing area.

Mr. Rather stressed that the pipeline companies realize production and exploration costs are rising and that they must pay higher prices for new reserves and supplies. But regulation, he said, will stifle the incentive for expanding production. On the other hand, competitive bidding for supplies will provide the necessary incentive and react to the advantage both of producers and consumers.

If natural gas producers are classed as a public utility and brought under federal regulation—a danger which Mr. Rather said is very real—it could only result in making less gas available to the public.

"Let the public understand that, let it understand some of the hazards of the producing business, and let it see how it is different from a public utility," Mr. Rather urged. "Let it realize the importance of continuing to find new reserves and I believe it will agree with us."

Residential gas users by counties published

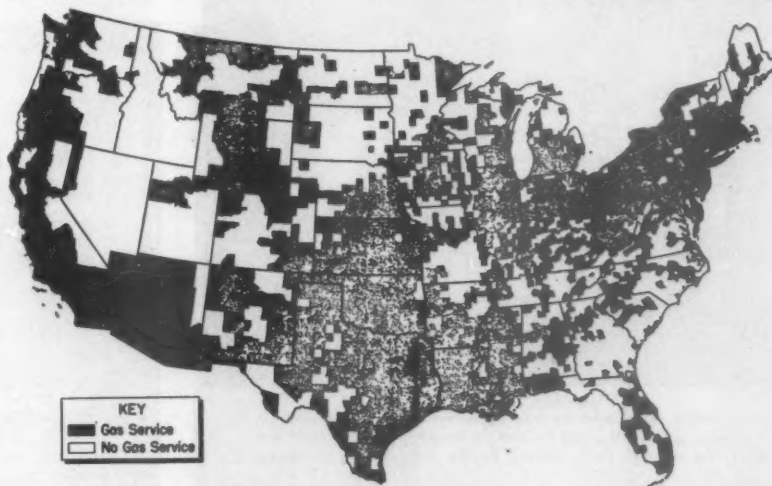
A survey of residential gas users, characteristics of gas service and approximate gas appliance saturations in each county of the United States, as of September 1, 1952, has been published by the Bureau of Statistics of the American Gas Association. The new publication is an up-to-date revision of a previous study made early in 1950.

The report also provides much salient data from the 1950 Housing Census, including tabulations of occupied dwelling units, the number of urban dwelling units constructed during 1945-1950, the number of dwellings with inside piped running water, as well as the number of occupied dwelling units using utility gas for cooking and house heating.

Integration of this data with the statistics obtained from more than 425 gas utility companies, representing 94 percent of all the gas industry, provides a complete picture of the residential gas market, brought down to individual counties. It will be useful to utilities, gas

appliance manufacturers and dealers in developing existing demands and potential markets for gas service and gas appliances in local areas.

The published survey contains more than 280 pages of text, tables and maps. It is available at A. G. A. Headquarters and is priced at \$5 per copy.



A county-by-county mapping of the availability of gas service conforms closely with the most heavily populated areas. The extension of pipelines have made natural gas more generally available and frequently inspired the establishment of new local distribution systems



The East Ohio Gas Company's exhibit, arranged under the direction of General Sales Manager Lee Corn and Supervisor of Domestic Sales George Duggan, was chosen first prize winner in the 1953 Greater Cleveland Home and Flower Show



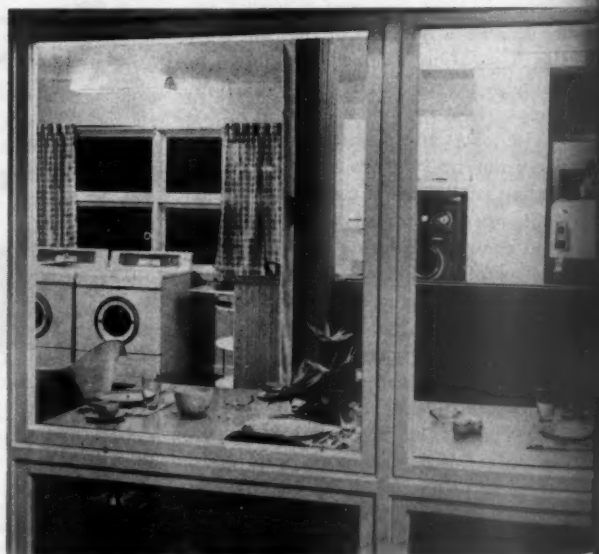
Robert McAuliffe, of East Ohio's domestic sales department, shows the new way to end garbage and burnable waste problems with an automatic gas unit. Over 200,000 visitors attended the show, which had more than 250 exhibits

Gas wins acclaim at home show



The kitchen and laundry center and the heating system of the "Trade Secrets" house, true to its character as the best in modern housing, was equipped with all-gas appliances by Western Holly, Servel, Bendix, Gasinator and Niagara

A peep into the smartly styled, efficiently designed kitchen and laundry of the "Trade Secrets" house shows the automatic Bendix gas dryer, the Western Holly gas oven and the automatic Servel gas refrigerator with ice





oven-in-a-wall, seen being demonstrated by Zenie Adamson of East Ohio's service department, was one of the many centers of interest that drew a steady stream of visitors to that company's prize-winning all-gas kitchen exhibit



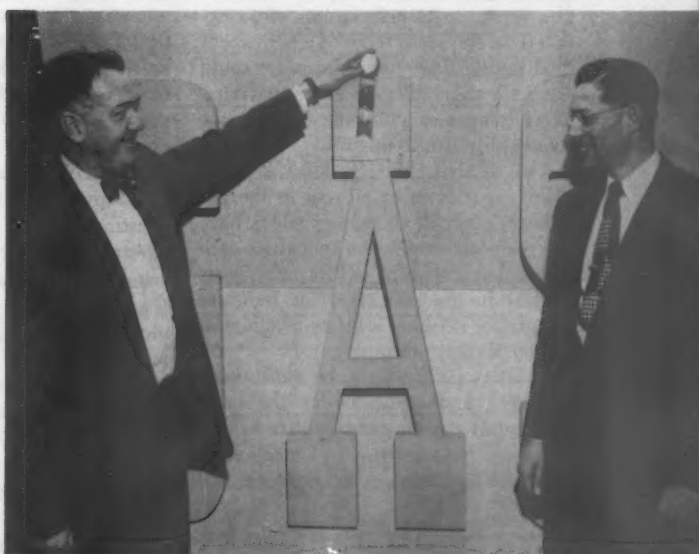
Authentic 17th century Dutch architecture helped strike the keynote for the 1953 Greater Cleveland Home and Flower Show. The floral display occupied the first floor of the Municipal Auditorium, while home exhibits filled the lower level

Gas appliances held "center stage" at the Cleveland Home and Flower Show, due to the first prize-winning exhibit provided them by The East Ohio Gas Company and to their selection for the "Trade Secrets" house



Jane Rayon of The East Ohio Gas Company's home service department, demonstrates the several advantages of a modern gas clothes dryer to one of the many who flocked to the company's Cleveland Home and Flower show exhibit

George F. Duggan, supervisor of domestic sales, The East Ohio Gas Co., holds the First Prize Ribbon, won by the company's exhibit over the more-than-250 in the show, while Assistant Supervisor Richard S. Washburn looks on approvingly



Size is no bar to need for safety

By William H. Adams

*Safety Consultant
American Gas Association*

No gas company is too small to have a safety program. A small distribution company, serving but one town, needs to promote safety with the small handful of employees. In fact the smaller the company, the greater need for safety. For example, a company serving one community having ten employees working steady, with occasional added help for construction work, could suffer a loss of \$100,000 if an employee received a permanent total injury. Few small companies could stand the shock of such an expenditure. Large companies with sufficient earnings could easily absorb this loss.

Two-thirds of our fatalities and disabling injuries to employees in the gas industry occur in companies which have less than 500 employees, and which contribute but one-third of the man hours worked in the industry. This indicates the greater need for a safety program in the small companies.

A safety program can be more easily promoted and conducted by the management of a small company than by that of a large gas company. In a small company the top manager or president has

the opportunity of being closer to the employees, many times knowing them by their first names and seeing them almost every day. He has the added advantage of getting out where work is being performed and can observe the methods employed. He should have more time and opportunity of initiating and promoting a productive safety program.

Whether the company is large or small, the fact remains that whatever the program is, to be successful and productive, it must stem from the boss. There is no short cut which will by-pass the boss.

No two gas companies are identical. Companies differ in type of gas served, company policies, work practices, benefits, and many of the phases of the operations which have a bearing on the methods employed. Your safety program must be cut to fit the many circumstances governing your operations. For example, there is one company which suffers from an epidemic of personal injuries through automobile accidents, and rarely has a man injured from the ordinary mechanics of the gas operations. That company needs to improve its driver training. One combination gas and electric company experiences little difficulty in selling the safety program to the gas employees, but the electric boys have an extremely high industrial accident record. A nearby company has the reverse experience and operates a similar industry.

To plan a successful program for a large or a small company, one should survey the situation and examine the past experience. This should include a look at the record of accidents in which someone was injured and a study of the location, circumstances, time, individuals involved and cause of mishaps. With these basic facts available a safety program may be outlined, *provided the boss wants one.*

Some companies call on outside help to inaugurate a safety program. It is interesting to map the plans and as any salesman will tell you, you must "plan your work and work your plan." Safety is a selling job. It can be sold to the employees, but generally speaking, the boss must sell himself.

Once the foundation is laid for a sound safety program, based on facts and top management's full support, each supervisor should be given a part to play in making the program effective. He in turn should place responsibilities on his men which will draw them into the suc-

cessful promotion of the program.

In setting up and promoting a safety program the assignment of responsibility is of the utmost importance. Top management must originate, introduce and support a safety program. The foreman is the key to safe and efficient operation. Employee activities can be stimulated by having employees as members of safety committees. Membership on such committees should rotate so that all will have the opportunity to serve.

Many small companies have found that the most logical approach to a successful safety program is through job training, preceded each day by a conference of employees on each job. These small conferences generally consume about five minutes and give the foreman an opportunity to describe the work that is about to be done and the hazards that might be involved. Known as the "tail-board" conference, these meetings are usually conducted at the rear of the truck used to deliver the men and equipment to the job.

The use of bulletin board, posters and films are all part of most good safety programs. The company publication should contain as many references to good safety practices as possible.

First aid training, as made available and taught by the American Red Cross, is important in an accident prevention program. It has been determined, by survey of many companies, that employees who have a thorough knowledge of first aid techniques are freer from accidents than those who have not had this training.

The A.G.A. Accident Prevention Committee and the Association's safety consultant are ready to assist all member companies in the promotion of a safety program. Among the services of the committee is the publication of its review of gas industry accidents, entitled "How Injuries to Gas Men Might be Avoided." A yearly summary of fatalities in the industry and the causes for these injuries are described in a special publication. The Association maintains a catalog of motion picture films on safety that are applicable to the gas industry.

At the present time the Accident Prevention Committee is preparing three films on safe practices in the distribution of gas. Two of these will be 16 mm colored sound films. The third will be a 35 mm sound strip film. These films will soon be available to member companies.

(Continued on page 48)

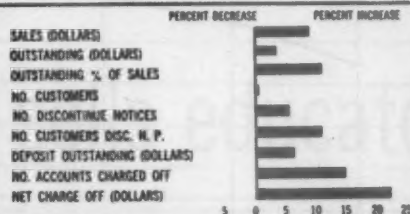
Delivered at a meeting of the Pennsylvania Natural Gas Men's Association, Hotel William Penn, Pittsburgh, February 19, 1953.

Sales rise, collections deteriorate



CREDIT AND COLLECTION EXPERIENCE OF U. S. GAS AND ELECTRIC INDUSTRIES

JULY 1, 1952 - DECEMBER 31, 1952 - COMPARED WITH SAME PERIOD 1951



• THE CREDIT PICTURE •

Submission of data by an increasing number of gas utilities is making this report of utility credit conditions steadily more representative of national and sectional conditions. Starting in 1949 with a summation of the data of 43 gas, electric and combination companies (A. G. A. MONTHLY, May 1949) the ninth semi-annual analysis, herewith, represents the averages of experiences of 73 companies. The data was gathered, collated and interpreted under supervision of the Credit and Collections Committees of American Gas Association and Edison Electric Institute. The previous six-month

survey was published in the November, 1952, issue of the A. G. A. MONTHLY.

In this latest Credit Picture the sales, outstanding and net charge off have been segregated because of the known fact that industrial customers are generally large consumers, require little effort to collect, usually have established pay habits and seldom result in a charge off. It is believed that to include them in the statistics, distorts the trend which the Credit Picture brings to our attention.

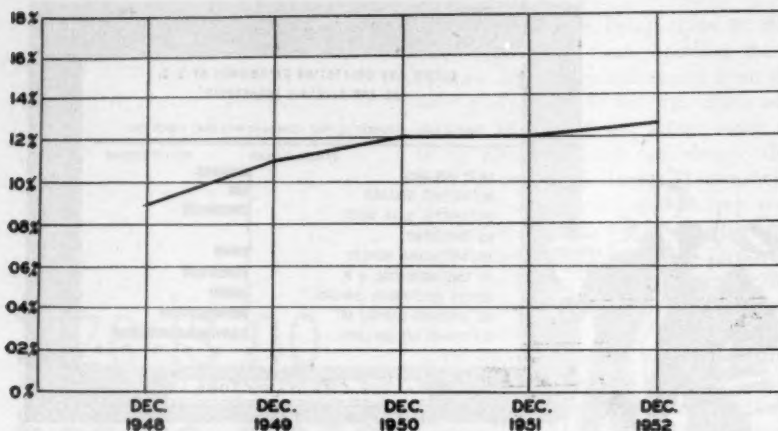
The chart which has been included

graphically indicates the gradual increase in the percent of net charge off to sales for the entire country. This chart is based on total charge offs and total sales including industrials.

The Credit Picture shows that collection conditions throughout the United States have been generally less favorable during the last six months of 1952 than they were for the corresponding period of 1951. Charge offs have increased substantially both in the number of accounts and in the dollar amount. This is a continuation of the trend as was shown in the

(JULY 1, 1952—DECEMBER 31, 1952) • PERCENT INCREASE OR DECREASE OVER CORRESPONDING PERIOD—1951

	NEW ENGLAND	MID ATLANTIC	EAST NORTH CENTRAL	WEST NORTH CENTRAL	SOUTH ATLANTIC	EAST SOUTH CENTRAL	WEST SOUTH CENTRAL	MOUNTAIN STATES	PACIFIC STATES	UNITED STATES TOTAL
SALES (Dollars)										
Total Sales	+ 6.6	+ 6.0	+ 7.8	+10.4	+11.5	+10.5	+ 9.8	+ 9.7	+11.0	+ 8.5
Total Sales (Excl. Ind.)	+ 6.3	+ 7.2	+ 8.8	+ 9.4	+12.0	+13.2	+12.6	+ 8.5	+10.0	+ 9.4
OUTSTANDING (Dollars)										
Gen. Led. Bal.	+ 5.8	+ 2.9	+ 3.6	+ 8.8	+11.3	+ 7.5	+14.0	+20.6	+13.2	+10.4
Cycle or Past Due Bal. (Excl. Ind.)	+ 6.3	+27.9	+ 3.8	+ 5.5	+13.4	+ 3.7	-21.6	+11.7	+ 7.6	+ 7.0
OUTSTANDING—% of SALES										
Gen. Led. Bal.	+ 0.1	+ 0.4	- 0.7	- 0.1	0	- 0.3	+ 0.3	+ 1.7	+ 0.3	+ 0.3
Cycle or Past Due Bal. (Excl. Ind.)	+ 0.1	+ 0.5	- 0.2	- 0.3	0	- 0.1	- 0.8	+ 0.2	+ 0.4	- 0.1
NUMBER OF CUSTOMERS	+ 2.0	+ 1.7	+ 2.7	+ 3.6	+ 6.6	+ 5.7	+ 3.8	+ 4.4	+ 4.6	+ 3.4
NO. DISCONTINUE NOTICES	+22.3	+ 5.2	+15.7	+ 1.8	+ 6.1	+15.5	+ 5.5	+19.3	- 3.0	+ 5.4
NO. CUSTOMERS DISCON. N.P.	+ 1.5	+ 5.2	+17.8	+14.7	+ 6.3	+ 1.6	+36.6	+17.0	+ 9.9	+10.4
DEPOSITS OUTSTANDING (\$)	+ 5.0	+ 9.3	- 8.1	+ 5.6	+11.1	+ 7.1	+ 5.4	+ 5.1	+ 1.5	+ 6.3
NO. ACCOUNTS CHARGED OFF	+14.9	+ 0.8	+18.5	+ 8.0	+13.3	+22.6	+19.1	+13.1	+15.6	+14.4
NET CHARGE OFF (Dollars)										
Total Charge Off	+46.6	+ 6.8	+27.7	+ 7.5	+40.8	+10.2	+11.3	+ 8.1	+31.7	+21.5
Total Charge Off (Less Ind.)	+32.2	+21.7	+23.3	- 1.6	+25.1	+ 4.8	- 5.7	+25.8	+25.4	+18.3
Companies Reporting	8	9	16	8	8	5	7	5	7	73



The percent of net charge offs to sales (including industrials) in the United States has increased gradually over recent years, rising steadily ratio-wise in the face of increased sales

Credit Picture for the first six months of 1952.

Sales continue to show an increase as well as the number of customers on the line. However, the outstanding, as well

as the number of customers discontinued because of non-payment, shows a marked increase.

The number of deposits, an indication of tightening credit, shows an increase

in all geographical areas except East North Central. In this area, eight of the twelve reporting companies show a reduction in deposit amounts while four companies show an increase. Two of the companies reporting a decrease explained it in one case by a change to a no-deposit policy and in the other case due to a merger and a policy of reducing deposits carried over by refunding those over one year old.

All areas except West North Central, East South Central, and the Mountain States show a greater increase in dollar volume of charge offs than the growth of sales.

This report is based on information furnished by 73 companies, which is five more than the number that submitted information for the last report. A real effort is being made to increase the number of companies furnishing this information, and at least fourteen additional utilities have agreed to submit a report for the next Credit Picture.

Studies of primary air control devices again available

A reprint of Bulletin No. 22 "Primary Air Control Devices for Atmospheric Gas Burners" is now available from the American Gas Association's Headquarters and the A. G. A. Laboratories for \$1.25 a copy.

First issued during 1944, Bulletin No. 22 presents extensive data covering studies of different means of controlling primary air injection with Bunsen burners. It outlines tests made to determine the relative merits of

various types of primary air adjusting devices in resisting reduction of initially regulated air-gas mixture ratios as a result of dust and lint stoppage.

Metropolitan Council foresees hard but worthwhile selling

HARD but happy selling days will be here again, speakers cautioned the Metropolitan Gas Heating and Air Conditioning Council's 17th annual meeting, March 13.

Informational and inspirational talks illuminated the one-day conference at Hotel Statler, New York, which drew 232 gas industry representatives—the greatest number since the council was organized in 1930. Conference chairman was G. E. Heller, Elizabethtown Consolidated Gas Co., Elizabeth, New Jersey.

Gas appliance sales and gas loads show continuing increases as a result of dealer cooperation, stated Frank W. Williams, secretary, A. G. A. Residential Gas Section. He pinch-hit for Charles G. Young, president, Springfield (Mass.) Gas Light Co. who was unable to attend because of a death in his family.

In his talk, "Pattern for Profit," Mr. Williams urged gas utilities to pitch in with the dealers who sell 85 percent of all appliances. "Otherwise," he observed, "our destiny may be relegated to the same position as the coal and ice industries which are taking leftover crumbs." Mr. Williams then described the forthcoming A. G. A. dealer sales program. He remarked that 15,000 salesmen and 75,000 dealers are needed to "join our great gas crusade to advertise, publicize and propagandize—then sell, sell and sell again."

More "application engineering" was urged by R. S. Bruns, vice-president, Transcontinental Pipe Line Co. who spoke about "What Can Be Done With Dump Loads, Interruptibles and the Heating Loads." "Application engineering," he said, "is an art too much neglected by the selling profession which has enjoyed the benefits of a rising market over the last ten years." Since price advantages "won't last forever," he urged that gas should be sold on its merits as a fuel.

Interruptible loads can best be coped with by offsetting loads, Mr. Bruns added, because they are "large when the heating load is off and small or zero when the heating load is on." He referred to certain dual-fired equipment which can switch back and forth between gas and some other fuel. "Probably the best interests of all concerned are served if this gas can be put into storage to be withdrawn during the peak periods in winter to supplement the normal deliveries," Mr. Bruns continued.

Taking a cue from Mr. Bruns, C. T. Burg, vice-president, Iron Fireman Manufacturing Co., Cleveland, briefly discussed equipment which can use two or three fuels with a simple wrist-twist adjustment. Although his subject was "Beware of the Three Bad Bogeymen," for a moment Mr. Burg scrambled the sexes by discussing "Loa," the Hawaiian hula-

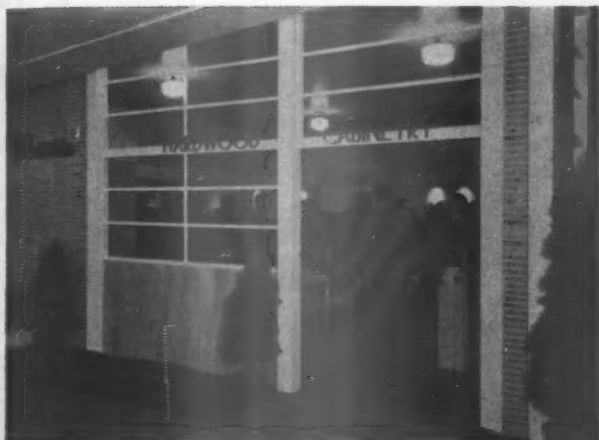
skirted lass who represents the "law of averages" for conscientious salesmen. He tagged the bogeymen as "inertia, pessimism and delay," the terrible three.

Air conditioning was heralded as a leading "plus value" in the encouraging new home building market, by Lyle B. Harvey, president, Affiliated Gas Equipment, Inc., in a talk entitled, "All Year Air Conditioning and the Home Market for 1953." He urged the gas industry to seize the initiative and capitalize on the opportunity presented by the statistic that "for the first time in U.S. history more consumers own their own homes than pay rent."

Mr. Harvey commented that "househeating is the key to holding and adding to the cooking and heating loads of utilities."

Beturbaned, bespectacled Sol Weill, eastern manager, George D. Roper Corp., bewitched his audience with words on "Good Salesmanship for 1953" to the music of Rimsky-Korsakoff's "Scheherazade." Acting the role of a maharajah from an Indian gas company, he intoned the modern parable of a "... hustler who needeth no eleventh hour alibis—but getteth names signed on the dotted lines ..." because he was abetted by his two guardian angles, "aspiration and perspiration." Quoth he, "68 percent of sales are lost through indifference."

Home setting sells educators



"Make mine home-like," voted educators after they flocked into the residential type model homemaking classroom shown by Mutschler Brothers at the National Education Association annual convention



Designed as a one-teacher homemaking department, the foods area contained two eight-pupil kitchens, one of them "U" shape and one "L" shape. Latest gas appliances were used throughout

Gas equipped kitchens were promoted to educators through the use of a residential type display by Mutschler Brothers Co. at the convention of the American Association of School Administrators, National Education Association, Atlantic City, February 14 to 19, 1953.

The exhibit was designed around the concept that homemaking education is intended primarily to improve home, family and community life. The selection of adequate equipment for homemaking classrooms was seen as playing an indispensable part in accomplishing this purpose.

To give the student the kind of instruction that will best prepare her for a career in homemaking, opined Mutschler officials, the equipment in the classroom must be designed to provide an effective setting for teaching all phases of homemaking, regardless of the size of the department, and to provide for demonstrating the possibilities of new or improved equipment for the home. Along

this line of thinking, it is important to design equipment to exemplify a home-like livable appearance.

The Mutschler Brothers exhibit at the NEA Convention was their interpretation of an ideal one-teacher homemaking department. With the aid of this exhibit it was possible to show school administrators, school board officials and home economics teachers facilities to teach: food selection and preparation, child care, home care of the sick and consumer problems. Facilities were also provided for teaching meal planning and service, care of equipment, selection, care and furnishing of the home, and home management.

The foods area contained two eight-pupil kitchens, one "U" shape and the other "L" shape. The latter was adjacent to the laundry. One Servel refrigerator served both kitchens. Western Holly built-in gas ranges and ovens were used in each kitchen. Without exception, administrators and their wives voiced in-

terest in the oven for its waist-high serviceability, and in the range because of the vast amount of storage beneath it.

The laundry contained a Bendix gas automatic clothes dryer, Bendix washer and a Servel nine cubic foot deep freeze. In a school, these kitchens would prove ideal for teaching both the youth and the adult education groups.

Mutschler Brothers officials considered that, by presenting its cabinetry, sink and counter tops and services in this manner, they also showed tangibly that: the company is endeavoring to keep abreast of the latest thinking in school teaching problems; the company is interested in working closely with school administrators in planning homemaking departments; various types of equipment and services must be correlated and coordinated to produce the desired benefits; and—as far as the institution appliance industry is concerned—a home-market type exhibit can be more effective because it sells products instead of ideas.

Here's a two-fisted, jet-paced work plan for pro



Wilbur Simonsen, as a carnival barker complete with hard voiced nasal twang, set the carnival theme



Numerous candid action shots of contest featured gas equipment were used for

Dramatize then capitalize

By KATHERINE L. RATHBONE

Home Service Supervisor
Southern Counties Gas Company
Los Angeles, California

Newspaper cooking schools are a lot of work, a great deal of expense, and not worth their salt—unless they create present desire and future demand for modern automatic gas ranges, refrigerators and clothes dryers.

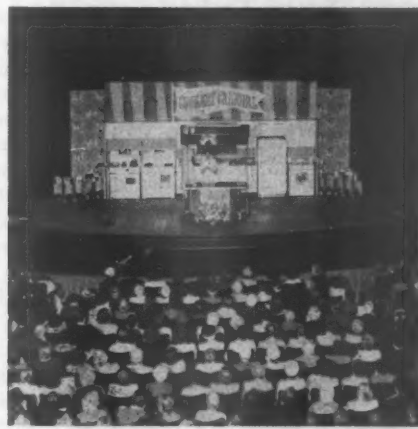
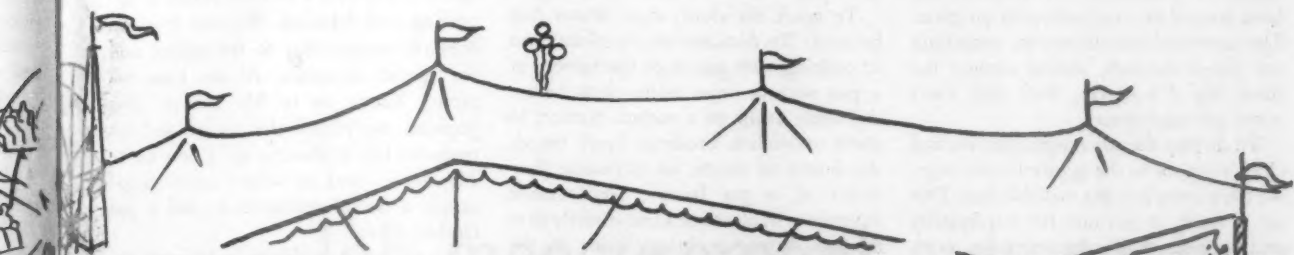
When planning a cooking school in Southern California, we feel, probably more than most, the competition of the Hollywood "land-of-make-believe." To meet it, we use the old technique of "if you can't beat 'em, join 'em" and have used some of their promotional technology to great advantage.

Promotion of a cooking school is basic. First, it must build an audience without which the school would be a failure and, second, it should sell the desire for modern gas appliances. The principal area of promotion is in the daily or weekly newspaper acting as co-sponsor. With the full cooperation of the newspaper,

Presented at the A.G.A. Home Service Workshop, Dallas, February 2-4, 1953.

the school is ballyhooed in the best Hollywood tradition. King-sized ads are used for their mass impact effect. All advertising and publicity copy hits hard at Mrs. Homemaker, the audience we want. Artistic appeal and mass impact always have produced a rewarding audience.

Publicity is aimed at the woman's vanity and curiosity. A tried movie land technique is used to create names for the home economists and master of ceremonies, because people are more interested in a name than an event. For this important build-up, we use glamour portraits and numerous informal action shots of our would-be celebrities using the equipment and food to be featured. These shots are taken in our home service planning kitchen, furnishing a kitchen background which appeals to every woman. In the publicity, the gas message is carried in all our stories pertaining to the cooking school, and also in the copy offered by the gas appliance dealers and local merchants. A trick of



res of gas appliances in use went into news-
publicity and theatre display shadow boxes

An evening cooking school in Santa Barbara drew a
capacity audience and hundreds were turned away

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newspaper publicity is to create enthusi-
asm for the celebrities, the program,
appliances and food, through special
20-page cooking school editions. Special
editions can make the show a community
affair by emphasizing gas appliance deal-
ers and local merchants contributing to
the school. Every effort is made to in-
clude as many of the local business peo-
ple as possible, thereby adding partici-
pants who are eager to make the show a
success.

Prizes are a top means of promoting
the audience for a successful school. The
major prize is always chosen from a
group of large gas appliances: gas ranges
built to CP standards, Servel refrigerators,
and gas clothes dryers. Many minor
prizes help to maintain daily audience in-
terest.

Getting the townspeople into the
stores of the gas appliance dealers and
merchants who are supporting the school
with advertising and prizes is a *must*.
The use of the multiple stub ticket has

proved successful. To be eligible for ex-
tra prizes offered by dealers, each person
must visit the merchant and deposit the
ticket stub. Many merchants offer free
gimmicks to induce the women to visit
their stores.

Another touch of Hollywood can be
seen in the use of the broadside. This
simple means of advertising the school
through distributing myriads of hand-
bills is extremely effective. The handbills
are given away from gas equipment
dealers' stores, the tie-in merchants and
grocery stores, the theater and the gas
company offices.

Our newest source of promotion is
the spectacular shadow box. Copied from
theater lobby display boxes, they present
a trio of eight-by-ten transparencies in
technicolor, again boosting our people as
celebrities. These informal action shots
are taken in the home service planning
kitchen during the preparation of our
current cooking school series. Fluorescent
lighting has been used to illuminate the

transparencies. These shadow boxes are
displayed in theater lobbies and gas com-
pany display floors in advance of the
cooking school.

Outside of the theater, we use lumi-
nescent theater banners which can be
seen for many blocks. This banner an-
nounces the school and has a "Coming
Soon" snipe. You and I know a snipe as
a flap! This flap can be removed the first
day of the school revealing the word
"Today." This one banner can be used
in all cities for all dates without change.

Hollywood has its premiers with red
carpets and kleig lights, and with some
of the same splash, we have a box office
winner in our night cooking schools.
More of a social occasion, these schools
draw a high percentage of men. The
evening school is welcomed by the
women who are employed—also by the
young mothers who can leave Johnny
and Suzy at home with Papa. A location
other than a theater may be necessary for
a night production.

Promotion is only a small part of the cooking school story. It can do nothing but bring in the audience in a receptive frame of mind.

Remember always that through various means of promotion the audience has been assured of an entertaining program. The promised entertainment, something not run-of-the-mill, should contain the three big F's—Food, Fun and Facts about gas equipment.

To display the gas ranges, Servels and clothes dryers to the greatest advantage, we use a complete one-wall kitchen. This set is built in sections for adaptability and includes wall cabinets, sinks, windows and a matching demonstration table and mirror. As the curtain opens we hope the audience will imagine that they are stepping into a New Freedom Gas Kitchen, instead of a hastily constructed substitute. Much can be done with the basic kitchen set itself to enhance the atmosphere. To tie-in with the present theme, "Cookery Carnival," we are using a banner above and gaudy zebra wall paper on the end sections.

Flood lights, base lights, overhead lights and spot lights are important to make the set sparkle and dazzle. The gas equipment, the home economists, the master of ceremonies and the food preparation center must all be lighted equally.

Technicolor makes the gas appliances stand out like stars. The advantages of colored or knotty pine cabinets, colored

costumes for the home economists, colored pottery and gay table covers are obvious. Banners and wall sections are colored to complement the rest of the set. Distance disillusion the appearance of food, so display materials must be flattering.

To spark the show, many stunts may be used: To demonstrate the cleanliness of cooking with gas, wipe the bottom of a pan with a clean white cloth before and after using on a surface burner; to show smokeless broiling, broil bacon, the fattest of meats; to emphasize flexibility of a gas burner, cook frozen vegetables in aluminum foil directly over the gas flame, or bring water to the boiling point in a whistling teakettle to accentuate the instant start, instant change and instant stop.

To illustrate various features of the Serval, emphasize its silence by asking the audience to keep very, very quiet, light a candle and hold it in front of the microphone; to draw attention to vegetable fresheners, snap crisp greens in front of the microphone; a foil-wrapped package of chopped parsley stored in the freezer for garnishing will represent time saved in last-minute preparation.

Play up the cooking of whole meals taken from the home freezer section of the Serval. A large pile of fluffy, colored, dryer-dried bath towels contrasted with a pile of line-dried towels illustrates the superiority of the gas clothes dryer. A similar comparison may be made with

brightly colored dryer-dried clothes and faded line-dried clothes.

The roadshow technique which many Pacific Coast companies are using helps to create the informal atmosphere which makes any school a success. Music is appealing and relaxing. We use it as an over-all introduction to the school and for special occasions. At the time the piece, "Come on to My House" was popular, we played the record and introduced the appliances as "Come on to My House" and see what I have—a gas range, a Serval refrigerator, and a gas clothes dryer.

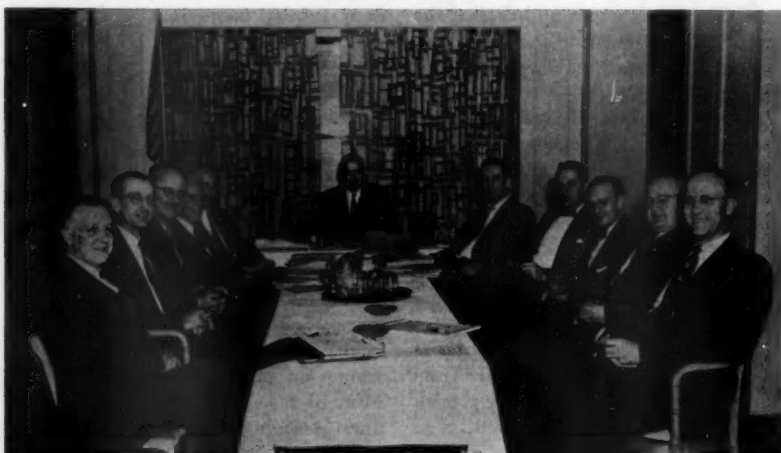
To maintain roadshow techniques, we use a versatile master of ceremonies and two home economists. Each home economist is capable of presenting the school, working as an assistant, or taking part in the skits. The master of ceremonies introduces the show, gives the commercials and announcements during intermission, introduces key people including participating gas appliance dealers, presides over the awarding of prizes, and helps to amuse the ladies with typical cooking school stories, which must be classified as "C.C." (corny but clean). He also takes an active part in the costumed skits. The skits are short, full of humor, but tell a gas story. One of the successful "meller-dramers" features and creates interest in the griddle. Our master of ceremonies, incognito as Chef "Salami," stages a hotcake baking contest with our home economist. To create hilarity he uses an Italian dialect and wears a cook's high hat and long, white apron.

To introduce this year's carnival theme, the master of ceremonies is disguised as a carnival "barker," complete with a barker's twang, straw hat, striped blazer and a cane. On the last day of the show, he becomes a "pitch man" summarizing the five outstanding features of gas. He comes onto the platform carrying a variety of articles symbolizing these features: a steel measuring tape demonstrates flexibility, a gyroscopic top shows steadiness, a model jet airplane illustrates speed, a large piggy bank indicates thrift and a large silk handkerchief denotes cleanliness.

The polka dot game is another manner of summarizing the virtues of modern automatic gas appliances. The features are printed on colored cardboard circles, taped to a corresponding spot on the appliance. We may copy the clever new potholders and equip these circles with tiny magnets.

(Continued on page 48)

Transmission conference program committee



The program of the first A. G. A. Transmission and Storage Conference, Chicago, April 30-May 1, was developed during a committee meeting in Columbus, Ohio, February 2. Present at the meeting were, l. to r.: John M. McCaleb, Columbus; Dr. Channing W. Wilson, Baltimore; F. A. Hough, Los Angeles; Julian L. Foster, Dallas; J. Stanford Setchell, A. G. A.; Walter H. Davidson, chairman, Houston; Frederic Moshier, A. G. A.; John V. Goodman, Pittsburgh; T. L. Robey, A. G. A.; Charles F. de May, New York; Joe T. Innis, Omaha. Conference story is on page 11

The expert use of job measurement as a cost control tool can make many operations more readily assessible

Job measurement aids costing

By R. F. OGBORN

*Manager Customers Department
Southern California Gas Company*

● Mr. Ogborn's article is sponsored by the Cost Management Programs Committee of the Accounting Section. Job Measurement is just one of the many tools available to management. Many persons have asked for copies of a talk on Work Simplification given at Atlantic City by J. C. Murtha, Consolidated Edison Co. of New York. Substantially the same story is told in his article "Study Raises Job Efficiency" in the April '52 issue of the A. G. A. MONTHLY. The committee wishes to emphasize that the technique of work simplification should be obtained from people qualified in the field of teaching it. For information about another cost management tool read "Keep Your Staff Cost-alert," A. G. A. MONTHLY, September 1952 by J. F. Rooney, Consolidated Edison Co. of New York, chairman, Cost Management Programs Committee.

Job measurement as used in our company's customers department achieves many desirable objectives. Some of the benefits to be obtained and the factors involved in arriving at job measurement standards are enumerated below:

A. Establishment of time values—Time evaluations are established for each of the elements of each job when performed at a normal working rate and in accordance with the present accepted procedure selected by the supervisors.

B. Assignment of equal amounts of work—The time evaluations, expressed in work units (minutes worth of work),

can be used for dispatching purposes in order to assign to each employee a fair and reasonable amount of work which can be expected from any employee during any given working period.

C. Evaluation of work performance—These work units can also be used to calculate production trends of individual



R. F. Ogborn draws upon 27 years of experience with Southern California Gas Co. in preparing this concise evaluation of job measurement

employees. While the work units established cannot logically be used as a final measure of the accomplishment of an individual on any one day, they can give an accurate picture of the general effort and effectiveness of that person if the records covering a reasonable number of days are averaged or considered as a whole. This limitation exists because conditions and the frequency of occurrence of certain elements of work vary from day to day, while the work units, for practical purposes, must be estab-

lished on a typical or average basis.

D. Comparison of methods of doing work—Work units established for the short elements or parts of each operation permit the time requirement of alternate procedures to be compared, and the selection of the shortest and most satisfactory method of accomplishing any given task.

E. Judgement of work performed impartially—Work units can be used to impartially judge procedures and the accomplishments of individuals.

F. Determination of number of people needed for the job—Work units and statistical data provide a means of determining the work load and man power requirements when applied to the volume of work to be performed in any specific period of time.

When time measurements are taken, the work is always carefully checked to make sure that proper quality is being maintained. No sacrifice of quality should be expected when the results of the measurements are used to assign work or to calculate the accomplishments of employees who are doing the work in the manner selected. Operation details described the procedure for each measured job.

It should be understood that time study in no way "freezes" the procedure as recorded. Changes may be made at any time, but it is highly important that notification of the changes made be given promptly so that the work units may be kept up-to-date and represent the time evaluation of current procedure.

Our experience with the use of job measurement confirms the fact that any

job or operation that possesses one or more practical units of measurement can properly and profitably be placed under the program.

Some of the jobs we have under measurement are meter reading, working orders to account records, posting payments, processing mail payments, checking collection notices, key punching and any number of posting and filing operations.

Job measurement is not always employed on a full time basis for each operation measured. There are some functions where little could be gained by a continuous measurement owing to frequency or magnitude of the operation. In these situations we employ measure-

ment to establish the procedure or job method to be used wherever there are two or more methods being followed or considered.

Our program of job measurement is one of the best mediums we have found to improve the productivity of the working staff. Measurement encompasses most of the essential features of job analysis, methods study and time evaluation.

A fair example of the results to be expected from the application of job measurement with its attendant analysis and methods study can be seen by examination of the figures produced on one small job that all utilities have, that of handling incoming mail payments.

In December 1951 our main office was

receiving an average of 240,000 mail payments a month. To handle these payments we had a working force of one supervisor and fourteen clerks with considerable overtime being required on an intermittent basis. Following the measurement of this job our group production went up 26 percent. This, together with the procedural improvements, has enabled us to handle the current monthly average of 257,000 mail payments with the one supervisor and ten clerks with no overtime being required.

The working forces involved in such studies take as much pride in their achievement as do the management people who were connected with the program.

Are you getting the most from your bulletin board?

The company bulletin board is an old standby for keeping employees posted on the activities and important happenings in the shop or office in which they work. It is a link in the complete communications chain that can be mighty effective when fully utilized.

To get the most from your company bulletin board, make a study of the following common ailments of many bulletin boards.

From "Safety Reminder No. 50," issued by the A.G.A. Accident Prevention Committee, over the signature of its chairman, A. Sidney Hancock, director of safety, Long Island Lighting Co., Mineola, New York.

Does your bulletin board need surgery? Is it slowly dying from having too many old bulletins? If it is dead, or dying, operate at once by removing outdated posters. The board must be policed regularly to keep material current.

Can the board be seen on dark days? Throw some light on the subjects, don't permit it to cause eye strain.

Is it a "kleptomaniac" board? Does it have the habit of picking up stray notices which have no bearing on employee or company communications? Nothing will make a board more unrepresentable than a collection of unimportant notices.

Are the bulletins neatly and properly

placed on the board? Fasten the bulletins so they don't fall off or flow about. Use enough thumb tacks and square them with the sides of the board.

Is your bulletin board troubled with congestion? Too many bulletins confuse the reader. Sectionalize the board, reserving the centers for the most important messages. Standardize size of bulletin and weight of paper.

Keep the board itself well painted and clean. Make sure it is well located so all will read the message. Make certain the messages are worthwhile and informative, with concise wording permitting but one interpretation.

Committee considers natural gas rate problems



Among subjects discussed at a recent New York City meeting of the A. G. A. Rate Committee were the proposed FPC rule intended to speed rate increase decisions, and problems arising from natural gas rate increases. B. P. Dahlstrom, sitting, head of table, presided at the meeting

Chairman B. P. Dahlstrom announces that the Rate Committee has issued a report on the problems of gas distributing companies arising from natural gas rate increases becoming effective in accordance with Section 4(e) of the Natural Gas Act. This provision of the Act creates many serious problems for gas distributing companies. The report of the Rate Committee, prepared by a subcommittee headed by Stuart W. John of Commonwealth Services Inc., analyzes the situation and indicates various avenues of relief. Mr. Dahlstrom, of the Public Service Electric and Gas Co., explains that this timely report should be of particular interest to management of gas utilities and to regulatory authorities.

No utility can afford to be without provisions to meet its liability if catastrophe should strike

Public liability insurance

By H. P. STELLWAGEN

*Executive vice-president
Indemnity Insurance Company
of North America, Philadelphia*

Excess liability insurance has presented certain difficulties and problems in the past year for the gas industry and the underwriters.

An important part of the business transacted by capital stock casualty insurance companies is the writing of public liability insurance. Policies of public liability insurance agree to pay, on behalf of the policyholder, all sums which he shall become legally obligated to pay as damages because of bodily injury and death, and injury to or the destruction of the property of others caused by accident. The regular run of public liability policies pay all losses from the smallest to the largest.

Most of the larger gas companies, however, like the big oil companies and the larger manufacturers, feel that they do not need protection against small losses. They are perfectly able to pay modest losses and see no use in paying the rather sizeable premiums which contemplate the payment of such losses. Then too, many public utility companies prefer to settle small claims made against them with more regard to public relations than to the strict application of the principles of legal responsibility. What these large companies really want is protection against catastrophe—reimbursement for the large loss which when it comes may affect their cash position and

even affect the return to their stockholders. Therefore, they seek to purchase what is known as excess of loss liability insurance which indemnifies the policyholder for loss in excess of a stated amount arising from any one accident. The amount over which the insurance applies is known as the policyholder's retention and the amount of this retention will vary with the size and financial position of individual policyholders. Some gas companies feel that they can safely bear a first loss of \$25,000 as the result of any one accident and believe further that they can bear such loss two or three times in the course of a year. Others have decided that they can well afford to absorb the first \$50,000 of any one loss. One public utility executive has said that, if his company bore the first \$100,000 of any one loss and if it were unfortunate enough to have three such losses in the course of a year, his company's earnings per share of common stock would not be affected by more than a few cents per annum.

The law books report a wealth of cases illustrative of the application of the law of negligence to gas companies. Generally speaking, the law holds them accountable for the exercise of that degree of care which is consistent with the nature of their operations. Thus, the gas company owes a duty to its customers and to the public in general not only to install its distribution facilities properly but also to maintain them properly. The company is under obligation from time to time to make reasonable checks as to the condition of pipes and to maintain adequate records indicating the length of time in which normal deterioration will create a hazardous condition. Pipes may

not be installed underground and then ignored completely. In most jurisdictions where change is made from manufactured to natural gas, there is a duty imposed upon the company either to adjust the customer's equipment or, at the very least, to give adequate warning to the customer that such adjustment is necessary due to the differences in burning characteristics of natural gas. Because of the dangerous nature of the instrumentality, convincing evidence of contributory negligence is necessary to bar the plaintiff from recovery particularly where there is some evidence of negligence on the part of the gas company. As might be expected, the evidence to support negligence of the company is frequently slight and need not be detailed and accurate.

Members of your industry recognize the need for liability insurance and for many years have purchased such insurance on an excess of loss basis from various insurance companies, both here and abroad. During the last twelve months, however, the gas companies have found it increasingly difficult to purchase such insurance from admitted American casualty insurance companies. Certain companies which formerly provided this insurance have ceased writing it.

The absence of an American insurance market wide enough to meet your requirements certainly does not imply that the casualty insurance industry has lost confidence in the gas industry. Your industry and mine are close partners in the free enterprise system of America. Many of you have looked to insurance companies for your financing and many insurance companies have taken up large parts of your excellent bond and preferred

Abridged version of an address before the joint session of the Natural and Manufactured Gas Departments, A. G. A. Convention, Atlantic City, N. J., October 27-30, 1952.

stock issues. American stock fire and casualty companies are prominent among the owners of substantial blocks of your common stock shares.

The premiums which we charge for insurance must cover the losses produced by the risks assumed, they must pay our expenses, and they must yield a profit. The major part of the premium is allocated to the payment of losses and to the cost of investigating and settling claims and the defense of law suits. The expense element of the premium covers a variety of things. It covers commissions payable to agents and to brokers who bring your business to us and negotiate it with us. It covers taxes on premiums levied by the several states. It must be adequate to include the cost of maintaining the company's home office and branch offices, its inspectors, engineers, payroll auditors, and general managerial personnel. Lastly, it must cover all our voluminous accounting and statistical work, much of which is required of us as it is of you by public authority.

Losses take 60 percent

It is not possible to say with too much accuracy how the premium dollar is divided on the average for all lines of casualty insurance, but it is somewhat near the fact to say that out of every dollar sixty cents is available for losses and loss expense, and forty cents for all overhead including profit. In the case of excess liability insurance, the expense factor is smaller and the loss factor, accordingly, greater. This is due to the fact that agents and brokers agree that the rate of commission payable on such business should be less than the rate payable on average business and also because the factor for certain general administrative expenses is proportionately less than in the case of normal business. The measure of an insurance company's profit is not the difference between premiums collected and losses paid. Losses represent only the manufacturing cost of our product. We, like you and other businesses, incur costs for selling, servicing, and handling our business and these must all be taken into account in computing our rate of profit. The truth is that, even under the best of auspices, the casualty insurance industry seldom makes a profit of more than 2.5 percent and last year and this year the business is operating with a serious underwriting loss.

With excess liability insurance there is either feast or famine—either absence of loss or a catastrophic loss of crushing proportion. Knowing this, the underwriter cannot observe his record on a single risk for a single year and say that he has made a profit or a loss. If there has been no loss, he must reserve the bulk of the premium remaining to him so that he can be prepared to pay the large loss when it comes.

Coinurance and reinsurance has particular application to excess liability business. If you talk shop with casualty insurance underwriters, you will often hear them refer to the necessity for an adequate spread of risk. Insurance operates on the law of average and the law of average works only with large numbers of homogeneous risks. In a field where the number of risks is small or where the amount of exposure to loss varies greatly from risk to risk, the law of average begins to act erratically. In such cases the underwriter manufactures a spread by co-insuring or reinsuring his risks with other insurance companies. Generally he will seek to limit his loss per risk so that, if he should become the victim of the perverse operation of the law of average, he will thereby avoid a crushing underwriting loss. This is a necessary procedure in the case of gas risks, oil risks, and others which are relatively few in number and which individually present a large loss potential. The original underwriter of such risks must reinsure them with a number of companies so that, if a large loss occurs, it will be spread over many companies and will not be concentrated in one company.

Two principles are basic in the field of liability insurance. The first is that rates must be adequate to cover losses and expenses and yield a profit. The second is that reinsurance is essential to the underwriting of risks which are limited in number and which are characterized by heavy loss potentialities. It was the failure of these two principles to operate in the case of the gas business that brought about the current restriction of the American market for excess liability insurance.

A little over a year ago it became abundantly clear that the premium income available to interested underwriters was insufficient to cover losses and expenses. Indeed, an underwriting loss of serious proportions had already developed. Then, and because of the under-

writing loss, the reinsurance market collapsed.

Soon after the close of the war, a change began to take place—a change which at first was hardly noticeable like a cloud no bigger than a man's hand. Yet, inflation was at work and it soon became apparent that a personal injury case that once was fairly settled for \$10,000 was costing \$25,000 or \$50,000 and frequently even more. Meanwhile, your industry was expanding quickly and vigorously. According to your Association's figures, \$5,100,000,000 was spent for expansion in the period 1947 to 1951 and an expenditure of \$5,600,000,000 is reported to be contemplated through 1956. Natural gas was being used more and more extensively and was being introduced into systems which had formerly depended exclusively on manufactured gas.

Market curtailed

About five years ago there began to occur in different parts of the country some rather serious gas explosions and the frequency of these occurrences began to build up in 1950 and 1951. The sum total of losses resulting from these accidents was so large as to wipe out the profits of the previous decade and produce a heavy loss on the business currently on the books of the American casualty companies. In the summer and fall of 1951 casualty companies began cancelling their reinsurance of other similar companies. Some companies quit the business altogether. My own company lost its reinsurance and was compelled, as a matter of self-preservation, to reduce the limits of liability it had hitherto offered its policyholders. The end-result was the curtailment of the American market for excess liability insurance.

The present position of the casualty insurance business is not propitious for an immediate or an early resumption of the underwriting of the gas business by many of the companies which have recently retired from that field. Last year the countrywide record of capital stock casualty companies entered in the state of New York showed an underwriting loss of \$91,307,000 on premium writings of \$2,479,640,000. The major part of this loss arose from the automobile bodily injury and property damage lia-

(Continued on page 44)

Wide variance in prevailing means of packing pipe fittings and nipples is raising storekeeping costs

Package design for economy

By L. R. MICHELSEN

General Storekeeper, The Peoples Gas Light and Coke Company and Co-Chairman, Subcommittee on Standard Packaging, Purchasing and Stores Committee.

The gas industry and many other industries for years had been burdened with increasing costs for the handling, storing, disbursing and inventorying of materials. These higher costs were due mainly to the lack of uniformity in size, kind, and manner of packaging of materials, and especially was this true of pipe fittings and nipples, two inches and less in diameter—items which are used in large quantities.

In October, 1946, the Material and Supplies Committee (now Purchasing and Stores Committee) of the American Gas Association, appointed a subcommittee to study the advantages of packaging pipe fittings of two inches and less in diameter. The result of a survey conducted by the subcommittee determined the most bothersome conditions to be:

1. Barrels or drums often contained several different type of fittings;
2. Burlap bags contained several sizes of nipples;
3. Boxes and/or kegs contained different sizes and kinds of fittings;
4. Lack of uniform count in containers;
5. Containers were of excess weights;
6. Poor identification of materials.

To report the receipt of pipe fittings properly under these conditions, it was necessary for the receiving man to unpack, sort, count and repack the contents in suitable containers or bins.

Those companies not equipped with mechanical equipment experienced great difficulty, due to the irregular shapes and sizes of containers and the excessive weights of containers often caused physical accidents to the individual handling the materials.

The irregular shapes and sizes of containers were a handicap to good housekeeping and hindered the full use of the



L. R. Michelsen reports the progress of a study directed toward reduction of costs of handling, storing and inventorying materials

cubic content of any given storage area.

The disbursing of the materials was slowed considerably, due to aforementioned shapes and sizes of containers, and the necessary counting at the time of issue.

The job of inventorying was quite a task, due to the miscellaneous sizes and kinds of containers, necessitating considerable handling to properly identify the material.

The subcommittee was of the opinion that the following advantages could be obtained by the adoption of standard packages.

Saving of stores space. A number of member companies were adopting, or had adopted, some form of mechanical handling equipment to aid in the use of more cubic area of any building or space. If fittings were in standard packages, greater use could be made of the space occupied.

Saving of handling time. If packages of fittings were of standard count, the necessity of unpacking odd size containers to facilitate disbursement would be eliminated.

Saving of inventory time. Packages of standard count would simplify and speed up count at inventory time and when spot checks are made.

Accuracy. Fewer errors in counting in the receiving, disbursing and inventorying of pipe fittings would be experienced.

Safety. Proper weights would aid in accident elimination.

The subcommittee contacted not only the gas industry, but also some of the manufacturers of fittings, distributors and trade associations. Representatives of the manufacturers of fittings were invited to be present at the subcommittee meetings to offer any suggestions they might have relative to the problems of packaging fittings.

Interviews which were held with the various manufacturers and others in most instances were encouraging and reassuring to the committee that there was a

need for up-to-date methods of packaging fittings. It also revealed that some manufacturers were giving thought to the idea of packaging fittings.

This encouragement prompted the subcommittee to discuss the subject further with the management of the American Gas Association, where approval was given to proceed toward obtaining a program for the packaging of fittings.

In June, 1950, a meeting was held by the subcommittee, at which representatives of the pipe, nipple and fitting manufacturers were present to discuss the recommendation of the committee pertaining to the number of pieces to be packaged per carton. The recommendation was proposed in the belief that not only would the gas industry benefit from the adoption of such a program, but other industries as well as manufacturers and distributors would also share in the

advantages outlined. While there were some differences as to the count per package recommended by the subcommittee and the count suggested by certain manufacturers, these differences were amicably resolved and the present program recommended.

A survey of gas companies whose members participated in the formalization of the program have revealed that since the packaging program has become effective, all the advantages previously stated have been accomplished. Some companies have entered into a program to package other materials, rearranged their storerooms and have acquired mechanical handling equipment to effect greater savings in the handling of packaged material.

Credit should be given to the National Association of Pipe Nipple Manufacturers, who with the assistance of the Pur-

chasing and Stores Committee developed a program of packaging pipe nipples in cartons that are very easily handled, either manually or by mechanical equipment.

The Purchasing and Stores Committee is grateful for the assistance given by The Commodity Standards Division, U. S. Department of Commerce, which resulted in the "Simplified Practice Recommendation 248-52—Packaging of Standard Malleable Iron Screwed Pipe Fittings, Black or Galvanized (for 2-inch pipe size and under)." Copies of this recommendation may be obtained from Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

The Commodity Standards Division is now assisting the Purchasing and Stores Committee to develop a standard for the packaging of gas stop cocks.

PAR inaugurates complete gas house heating promotion

A THREE-MONTH SALES campaign on gas househeating, reflecting an expansion of A.G.A. promotional activity, is being presented this year from April through June for the first time.

Utilities and dealers now can build sales in response to the demand for gas househeating which has been greatly increased in recent years. To spearhead this sales push, A.G.A. is making available a full promotion kit, booklets and newspaper art elements.

The package of 13 colorful display units comprises: two 9¼" Kleenstik pieces, "Only Gas Gives So Much For So Little," which can be mounted directly onto heating units; one 20" by 30" easel-mounted counter card, "Only Gas House Heating Gives You Greater Comfort With Least Effort"; two large 17" by 34" banners, "Only Gas House Heating

Gives You Greater Comfort With Least Effort," for window or wall use; and eight colorful pennants announcing, "Only Gas Means—No Ordering Of Fuel—Greatest Of Ease—No Effort For You—The Ultimate In Comfort." This complete display kit costs \$4.20, parcel post prepaid.

One of the "Big 10" booklet series tieing-in with this drive is "10 Predictions For Fair and Warmer When You Heat Your House With Gas." This publication can be used as a self-mailer; for counter pick-ups on sales floors and in dealers' sales rooms, and as a general giveaway. Booklets cost 4½ cents each, from 100 to 9,999, and four cents each from 10,000 up. A discount of 1½ cents each booklet will be extended to PAR Plan subscribers. A second booklet, "Gas Househeating Sales Maker," is a handy

manual on gas salesmanship. Individual copies are 15 cents, and ten or more copies cost 10 cents each.

Utilities and dealers also can link their display and direct mail promotions with local newspaper advertisements. The American Gas Association offers a mat service which contains a compact variety of art elements in many sizes, plus suggestions showing how these units can be arranged as a complete series of newspaper advertisements. Suggested copy also is included to illustrate how this mat service and its messages encourage gas house heating. A full set of mats costs eight dollars.

Display kit, booklets and mats all can be ordered from the Promotion Bureau, American Gas Association Headquarters, New York.

Grant American Gas Practice completion certificates

FIVE YOUNG MEN have been awarded American Gas Association certificates for completing the course in American Gas Practice. The course, conducted by Professor Jerome Morgan, consulting chemical engineer under American Gas Association auspices, is divided into two parts: I—production of manufactured gas; and II—transmission, utilization and other gas company operations.

Charles C. Bellis, of Johnson City, N. Y., has completed Part I. Holder of the New York State regents diploma in technical electricity, Mr. Bellis is employed as an engineering as-

sistant and draftsman for the Binghamton (N. Y.) Gas Works Company.

Frederic Kessler, also with the Binghamton Gas Works, has completed Part II. Mr. Kessler who has been with the company for 19 years, is employed as a district office manager. He is a graduate of Hamilton College.

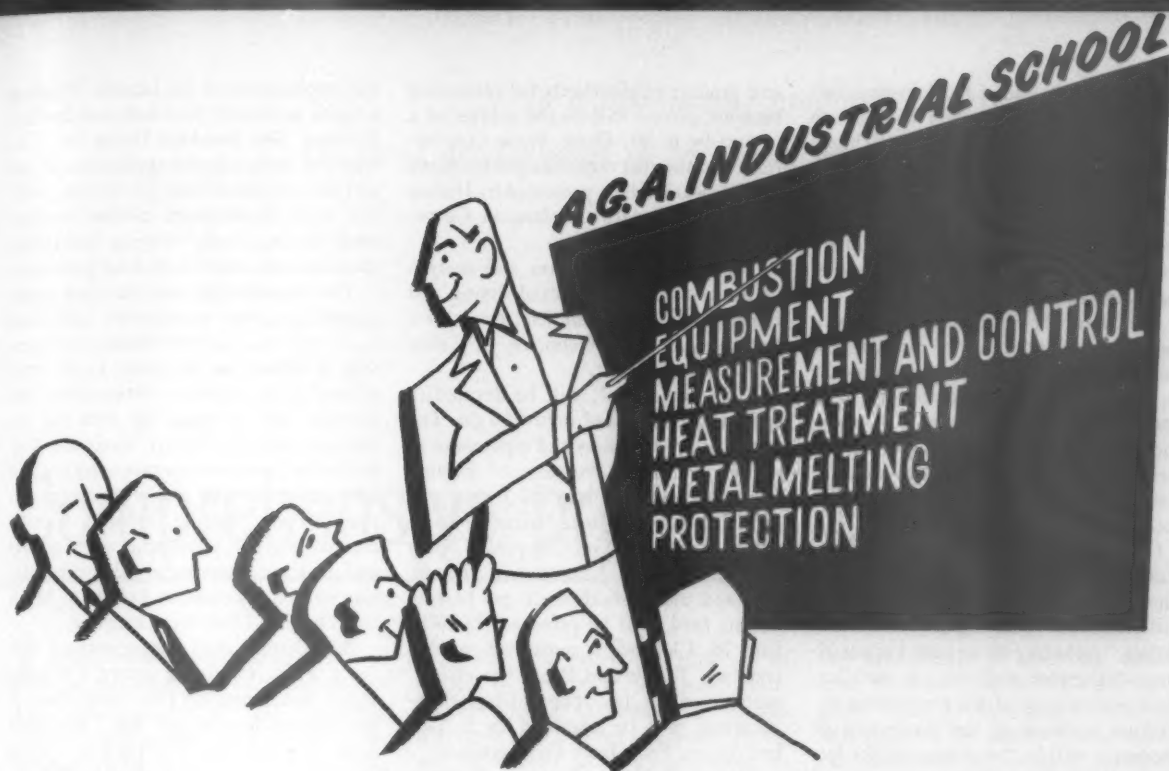
Bruce V. Nelson, an alumnus of Rutgers University, has completed Parts I and II. Mr. Nelson is a cadet engineer for the Public Service Electric and Gas Co., Newark, New Jersey.

David W. Brown, who completed Part II

last year, has now finished Part I. He, too, is a graduate of Rutgers, and is employed by Public Service Electric & Gas Co. as assistant superintendent of distribution in Trenton.

John J. Kennedy has completed Parts I and II. He is a graduate in chemical engineering from Rensselaer Polytechnic Institute, and is presently employed by The Brooklyn Union Gas Company.

A Californian, Lloyd A. Dunlap, has earned a certificate for completing Part II. Mr. Dunlap is a gas serviceman for Coast Counties Gas & Electric Co., Hollister, California.



Industrial school bell rings

The popular biennial Industrial Gas School will be sponsored by the Industrial and Commercial Gas Section, American Gas Association during the week of May 4, 1953 in The Sheraton-Cadillac Hotel, Detroit.

This school affords an opportunity for industrial gas men to acquire a background of technical information so that they may have an intelligent approach to the industrial gas problems of their prospects and customers. Over 400 men have benefitted by attendance at the three industrial gas schools held since the war.

The course of study is not intended to turn out finished industrial gas engineers. Instead, it provides an outline on fundamentals of gas combustion and utilization and covers quite thoroughly the important uses of gas for industrial processing. The printed lectures will serve as a reference manual for the majority of applications encountered in

routine contact with industrial gas users.

The curriculum has been designed to give a thorough knowledge of the technical aspects of industrial gas applications as basic training for new men and to give experienced men a refresher course combined with information on latest equipment and techniques.

The five-day program will provide instruction under the headings of fundamentals, combustion systems, burners and applications, and measurement control and protection, and ferrous and non-ferrous metal heat treatment and melting. The course will also cover heat processing of glass, ceramics, food, textiles, paper and miscellaneous products, prepared atmospheres, drying and finishing, steam generation and use, liquid heating, industrial sales problems and salesmanship.

The lecturers are among the nation's leading specialists in their respective fields and the lectures will be conducted strictly on schedule. Copies of the pro-

gram have been mailed to all member companies.

On Monday, May 4, the lectures will be on "Combustion," and D. A. Campbell, Eclipse Fuel Engineering Co. will present the fundamentals. He will be followed by H. W. Schram, Surface Combustion Corp. whose topic is "Combustion Systems and Burners." Charles C. Eeles, The Ohio Fuel Gas Co. will speak on "Burners for Gas and Oil."

The second day of the school will cover the basic applications. The practical approach to providing furnace and burner capacity in industrial heating operations will be presented by George McCormick, Industrial Heating Equipment Company. Then a description of the types of temperature measuring systems and controls will be given by Raymond R. West, Minneapolis-Honeywell Regulator Co., followed by J. B. Smith, speaking on "Protective Devices, Practices and Codes."

Heavy industrial applications will in-

clude a presentation of fundamental metallurgy in the iron carbon equilibrium diagram, by Edward J. Ocean, Michigan Consolidated Gas Company. Stanton T. Olinger, The Cincinnati Gas & Electric Co. will lecture on the "Basic Heat Treatment of Ferrous Metals" which will include the general principles and operations involved in heat treating steel.

"Tools for the Heat Treater," an analysis of the requirements of modern heat treating equipment will be presented by A. H. Koch, Surface Combustion Corporation. Then the equipment, furnaces and fuels used for forging and forming metals and alloys will be discussed by George P. Holman of the Chrysler Corporation.

On the third day, continuing heavy industrial applications, Stewart C. Parker, The Peoples Gas Light and Coke Co., will discuss the "Melting of Non-Ferrous Metals," including aluminum, copper alloys, magnesium and zinc. A metallurgist's presentation of the gas heating operations involved in the processing of aluminum will be the subject of the lecture by E. S. Bunn, Revere Copper and Brass, Inc. This will be followed by a lecture on "Heat Treating of Copper and Brass" by Arch H. Copeland, Jr., of the same company.

Two lecturers on glass will complete the morning session. Dr. Donald S. Sharp of Libbey-Owens-Ford Glass Co. will speak on "Glass Melting." A leading authority will speak on the "Annealing and Decorating of Glass."

More about glass will be told by Robert C. LeMay, Selas Corporation of America in his lecture entitled "Glass Forming, Fire Polishing and Tempering."

Continuing with other applications during the afternoon session, problems

and product requirements for processing vitreous enamel will be the subject of a lecture by E. W. Dany, Ferro Corporation. The thermal requirements for firing ceramic ware will be presented by Harvey C. Weller, Surface Combustion Corporation.

The principles, practices and designs of ovens used for industrial drying and finishing will be the subject matter of a lecture by Herman Gehnrich, of Gehnrich & Gehnrich, Inc.

Thursday, May 7, will be devoted to special applications of industrial gas. The gas heating operations and equipment in the volume food processes of baking, roasting, smoking, deep fat frying will be discussed by Keith L. Valrance, Michigan Consolidated Gas Company. "Spray Drying," with a discussion of the details and the application of gas heating in this field, will be presented by William M. Clelland, a consultant on this process. "Textile and Paper Processing" together with a description of typical applications will be discussed by E. Gilbert Silven, Providence Gas Company.

The applications of prepared atmospheres to various industrial operations is not too well known to industrial gas men and provides an interesting field for investigation. Gladstone Kier of The C. M. Kemp Mfg. Co. will tell about this.

During the afternoon session steam applications, steam boilers and the conversion of boilers to gas will be covered in a series of lectures presented respectively by A. V. Leudemann, Mears-Kane-Ofeldt, Inc., John K. Baker, Eclipse Fuel Engineering Co., and A. D. Frydendall, The Peoples Gas Light and Coke Co.

Maurice J. Dewey, Dewey Gas Furnace Co. will continue the series on spe-

cial applications in his lecture "Heating Liquids in Tanks" then followed by Carl Wierum, The Brooklyn Union Gas Co., who will lecture on the application of gas and the equipment used for varnish cooking, fume incineration, battery burning, mold drying, ladle heating and other miscellaneous small industrial processes.

The industrial gas engineer must know something about competitive fuels and A. G. A.'s C. George Segeler will present a lecture on the costs to be considered in preparing a comparative fuel analysis and selecting the fuel for industrial heat processing. Then the factors to be considered in surveying a plant for industrial fuel uses, including in-plant feeding, will be explored. Recommendations for organizing sales efforts and making a successful sales presentation will be discussed by Robert A. Modlin, The East Ohio Gas Company.

All salesmen need inspiration and Milton J. Firey, managing owner, Congress Hotel, Baltimore, has been invited to tell the students how to put "fire" into their sales presentations. His topic is "Ideas that Sell" and he will explain to the students how to win half the selling battle.

The 1953 school will be limited to 150 men who are employees of gas companies, of present or prospective industrial gas customers, of gas equipment manufacturers and gas equipment dealers. The enrollment fee is \$35.00 and payment should accompany each registration blank and be sent to the Association. For additional enrollment blanks or for further information regarding the Industrial Gas School address, M. A. Combs, secretary, Industrial and Commercial Gas Section, American Gas Association, 420 Lexington Avenue, New York 17, New York.

Management Workshop spotlight to focus on training films

A STUDY OF EDUCATIONAL films, film strips and recordings for use in management development programs has been completed for the second Utility Management Workshop.

The workshop, for executives of electric, gas, telephone and water utilities, will be conducted at Columbia University's Department of Industrial Engineering, May 18-29, 1953 at Arden House, Harriman, New York. Workshop members will study the characteristics required in executive jobs and how these characteristics can be discovered and developed.

Robert T. Livingston, workshop director, reports that an extensive review has been made

of 16 mm motion pictures, film strips and tape recordings, and those which have specific value for executive training and management development programs have been selected for study. A bibliography, entitled "Annotated Bibliography of Audio-Visual Aids for Management Development Programs" has been compiled for the session. The bibliography contains data and comments on 109 items, and is subdivided into the following sections: management development programs; the executive and his job; selection and placement; executive training; industrial engineering and management; supervision and leadership; human relations; public relations; and social problems.

The workshop members will be provided with samples of the audio-visual aids mentioned in the bibliography, as well as work kits of other research materials and selected publications. In addition, a reference library collection will be at their disposal, and they will be assisted by the Columbia University staff, research team, conference leaders, counselors and other experts.

Copies of the "Annotated Bibliography of Audio-Visual Aids for Management Development Programs," the first to be published in this specialized field, are available from Research Service, 353 West 57 St., New York, for \$2.50.

In a fast-moving program, experts will expound the latest developments in gas production and chemical treatment

Comprehensive program planned

A well-rounded program, packed with vital and timely gas industry subjects has been organized for the Operating Section's Production and Chemical Conference, Hotel New Yorker, New York City, May 25-27, 1953. From early on the opening morning until late the closing afternoon, a tight schedule of general and luncheon sessions has been arranged.

The intensive program will feature speakers, panels, forums and round tables on subjects running the gamut from safety, water pollution, personnel, research, tar dehydration and cleaning of equipment, through natural gas substitutes, LP plant stand-by, gasification of coal, and odorization. Factual presentations have been planned to reflect the interests of every individual in the industry concerned with the production, processing, and chemical treatment of gas.

A total of nine cogent papers will be presented during the two general sessions on Monday. W. H. Isaacs, The Peoples Gas Light and Coke Co., Chicago, will preside at the morning general session as chairman of the section's Gas Production Committee. Channing W. Wilson, Consolidated Gas Electric Light and Power Co. of Baltimore, will present the chairman's report on the section's progress during the past year, followed by A. G. A. Managing Director H. Carl Wolf, who will welcome the delegates.

The importance of following established safety rules will be discussed by Mathew M. Braidech, National Board of Fire Underwriters, New York. "People—The Catalysts of Production" is the

intriguing and provocative title of an address by George E. Whitwell, Philadelphia Electric Company. The session will close with a paper and panel discussion by Bureau of Mines personnel on gasification of pulverized coal with steam and oxygen at atmospheric pressure.

The Monday afternoon general session, under the gavel of W. E. Churchill, Boston Consolidated Gas Co., as chairman of the section's Chemical Committee, will be devoted to research activities. T. L. Robey, A. G. A.'s coordinator of research, will review the Association's gas production research program, followed by four papers by members of the staff of the Institute of Gas Technology. E. F. Searight and H. R. Linden will dis-

cuss the influence of operating variables upon the substitutability of high Btu oil gases; H. A. Dirksen and C. E. Pierson will consider the production of natural gas substitutes by catalytic autohydrogenation of high Btu oil gases; E. J. Pyrcioch and C. G. von Fredersdorff will talk on the influence of operating variables on synthesis gas production in pressure coal gasification; and IGT's Director E. S. Pettyjohn will present a paper prepared by himself and Messrs. Dirksen and von Fredersdorff on the selection of catalytic processes for natural gas substitutes from coal.

The conference's only planned social function will be held Monday afternoon. Delegates and their wives are cordially



W. H. Isaacs, left, chairman, Gas Production Committee, has led that group in assembling a program of vital production subjects. W. E. Churchill, right, chairman, Chemical Committee, guides the agenda of timely presentations set for that segment of the conference

invited to attend a social hour from 5:00 to 7:00 p.m.

Because of the tremendous amount of material to be presented at the conference, there will be two parallel sessions on Tuesday morning, followed by four parallel conferences which will begin with luncheon and continue throughout the afternoon.

Mr. Churchill will preside at the morning's chemical conference, which will open with a paper on the utility of the mass spectrometer in gas industry analysis by J. E. Neuzil, G. Olson, and D. V. Kniebes of IGT. G. D. Clayton, U.S. Public Health Service, Detroit, will discuss the determination of air pollution contaminants; pipeline odorization control will be considered by H. L. Cline, Transcontinental Gas Pipe Line Co., Houston; and M. Frank Knoy, Boston Consolidated Gas Co., will talk on the graphic methods for predicting interchangeability. The method of preparing high Btu standard gas for use in studying the accuracy of a recording gas calorimeter will be the subject of an address by H. H. Eisman, National Bureau of Standards; and the session will close with a discussion of the methods of controlling flame characteristics in mixed gas systems, by R. A. Sloan, Philadelphia Gas Works Division of The United Gas Improvement Company.

Presiding at the gas production session on Tuesday morning, Mr. Isaacs will introduce Ralph W. Everett, Aqua-Seal, Inc., New York, who will outline 20 years' progress in organic coating for corrosion prevention. How to keep LP plants ready for use will be explained by Dean B. Seifried, Rockland Light & Power Co., Spring Valley, N. Y.; the

value of industrial stand-by plants will be discussed by H. E. Thomas, H. Emerson Thomas and Associates, Inc., Westfield, N. J.; and J. L. Turnan, Worcester (Mass.) Gas Light Co., will consider the use of LP in the utility plant of tomorrow. A triumvirate from the Bureau of Mines in Pittsburgh, F. W. Smith, D. A. Reynolds, and R. E. Brewer, will reveal the effect of 18 months' stockpiling on the coking properties of a Pond Creek coal. The importance of safety in the operation and maintenance of stand-by production equipment is the subject of an address by Willard J. Ball, The Peoples Gas Light and Coke Co., Chicago. The session will conclude with a report on the work of the Builders Subcommittee by its chairman, R. P. Oliveros, Semet-Solvay Division, Allied Chemical and Dye Corp., New York.

Luncheons gain popularity

The increasingly-popular luncheon conferences on Tuesday will be devoted to the following subjects:

Carbonization and coke, presided over by J. F. Farnsworth and Michael Perch, both of Koppers Co., Inc., Verona, Pennsylvania.

Chemical, presided over by A. E. Sands, U. S. Bureau of Mines, Morgantown, West Virginia.

LP-gas, with Dean B. Seifried, Rockland Light & Power Co., Spring Valley, N. Y., presiding.

Water gas, presided over by Vincent Salzone, Consolidated Edison Co. of New York, Inc.

Mr. Isaacs will again preside at the general session on Wednesday morning, which will open with a paper on meth-

ods of cleaning process equipment without dismantling, by M. P. Barbarin, Dowell, Inc., Upper Montclair, New Jersey. J. R. Menzies, Department of National Health and Welfare of Canada, will discuss the water pollution activities of the International Joint Commission, followed by a presentation on the production of high Btu gas from gasoline and kerosene, by Dr. E. H. Smoker, United Gas Improvement Co., Philadelphia. A. H. Wicht, Long Island Lighting Co., Garden City, N. Y., will present the chairman's report of the work of the Tar Dehydration Subcommittee; H. R. Linden and Miss R. Parker, of IGT, will discuss the control and resolution of high Btu oil gas tar emulsions; and the session will close with a paper on the TPC oil gas process by T. F. Loughry of Surface Combustion Corp., Toledo.

Wednesday's luncheon afternoon sessions will be devoted to:

Plant waste disposal, with W. H. Fulweiler, consulting chemist, Philadelphia, presiding.

High Btu gas, presided over by Glenn M. Hammond, Michigan Consolidated Gas Co., Grand Rapids.

Oxygen, presided over by W. D. McElroy, The United Gas Improvement Co., Philadelphia.

This program was developed after intensive work and study by a committee composed of members of the Chemical and Gas Production Committees. Their aim was to prepare a well-rounded, down-to-earth program with papers and discussions by men who are authorities in their respective fields. The wide variety of vital subjects included in the program would seem to indicate that their objectives have been achieved.

A.G.A. announces new publications

LISTED HERE are publications released during February and March, up to closing time of this issue of the MONTHLY. Information in parentheses indicates audiences for which each publication is designed.

ACCOUNTING

● **Auditing Case Studies Nos. 81-90** (for all accountants). Sponsored by the Internal Auditing Committee, and available from A. G. A. Headquarters, free.

RATE

● **Rate Adjustment Clauses**, by Charles A. Ashby, Jr., chairman of subcommittee on Rate Adjustment Clauses, 1952 Rate Com-

mittee. Available at A. G. A. Headquarters, fifty cents to members, one dollar to non-members.

RESEARCH

● **Prevention and Resolution of Tar Emulsion in High Btu Oil Gas Production** (for any company planning to or already producing oil gas). By H. R. Linden and R. Parker. Available for \$2.50 from the Institute of Gas Technology and A. G. A. Headquarters.

STATISTICS

● **Survey of Residential Gas Service**, by County (for gas utilities, appliance manufacturers, dealers in competitive fuels, many

others). Prepared by the Bureau of Statistics, and available from A. G. A. Headquarters, five dollars a copy.

● **Quarterly Report of Utility Gas Sales, Fourth Quarter, 1952** (for entire industry). Contains best available data on 1952 gas utility customers, sales and revenues. Prepared by A. G. A. Bureau of Statistics, and available free from Headquarters.

● **Monthly Bulletin of Utility Gas Sales, January 1953** (for entire industry). Prepared by and available from A. G. A. Bureau of Statistics, free.

● **Proved Reserves of Crude Oil, Natural Gas Liquids and Natural Gas, December 31, 1952** (for entire industry). Prepared by the A. G. A. Committee on Natural Gas Reserves, available at A. G. A. Headquarters.

Two regional sales conference programs are chock full of inspiration and smart merchandising ideas

To emphasize salesmanship

The need to stimulate direct salesmanship in the gas industry has sparked the formulation of the hard-hitting, information-packed program of the 1953 Mid-West Regional Gas Sales Conference. Scheduled for April 27-29, in Chicago's Edgewater Beach Hotel, the conference is a sales program builder from beginning to end.

Right from the keynote address, "Sell or Shrive!" by Frank C. Smith, president of both Houston Natural Gas Corp., and of A. G. A., the merchandising encouragement theme is high powered and informative. Than Mr. Smith, says Conference Chairman George D. Wells, no gas utility executive has a greater understanding of today's vital need for expanding sales programs.

One of the most recent improvements for gas ranges, and the one on which much high-ticket selling can be built, is automatic ignition. Two types of automatic ignition—by electricity or gas—have been introduced. A portion of the program will be devoted to a pro and con discussion of the considerations surrounding the respective merits of these two mechanisms. Floyd M. Rosenkrans, general new business manager, The Gas Service Co., Kansas City, Mo., will present the case for electric ignition. Bernard H. Wittmann, manager, domestic sales department, The Peoples Gas Light and Coke Co., Chicago, will argue for gas ignition. Audience participation is expected to develop considerable lively discussion of this topic.

Space heating, also of great and growing interest to the gas industry, will be the subject of an outstanding presentation. Clayton E. Holmes, vice-president in charge of sales, Natural Gas Pipe Line Co. of America, Chicago, will paint an



George D. Wells, left, new business manager, The Gas Service Co., Topeka, and chairman, Mid-West Regional Gas Sales Conference, describes the scheduled program as "keyed to the preservation and increase of domestic gas load." Howard B. Yost, sales engineer, Hope Natural Gas Co., Clarksburg, W. Va., chairman, Eastern Natural Gas Regional Sales Conference, heads up an annual gathering that attracts wide utility and manufacturer sales executive attendance



impressive picture of the tremendous developments in making large volumes of natural gas available in the near future. And then, looking at the other side of the "natural gas coin," Lyle C. Harvey, general manager, Bryant Heater Div., affiliated Gas Equipment, Inc., Cleveland, will explain how gas utilities can dispose of this supply most effectively.

R. J. Canniff, highly experienced counsellor in sales promotion, advertising and marketing, will discuss the ever changing pattern of distribution and merchandising techniques. In addition, he will spell out the industry's need for more effective sales promotion and the necessity of working with dealers.

Romance of a most lasting sort will rear its beautiful head when Chet S. Stackpole, vice-president, Eureka Williams Corp., Bloomington, regales the conference audience with "I'm in Love

with Salesmanship." He promises to parcel off that same affection for selling to every member of his audience. Described as being as infectious as the measles and as inspiring as a brisk autumn morning, his address is expected to set off a chain reaction of two-fisted selling.

Clifford E. Hall, A. G. A.'s promotion manager, is going to bring conferees up to date on the Association's nation-wide promotions. In tune with the conference theme, his program will be devoted to a presentation of the selling "tools"—the advertising programs that the Association supports with national advertising, the promotion kits and the expert planning—that are available to gas utilities.

The growing importance of cooking promotions in building the cooking load has led the Conference Program Committee to arrange for the appearance of Mrs. Marjorie Griffen Groll, a gifted

speaker, talented cook and well known publicist of Topeka, Kansas. Mrs. Groll will tell how cooking promotions may be designed to aid in selling gas and gas ranges.

The program even has a portion that is being kept entirely under wraps. The Program Committee has refused to give out details of a contemplated extravaganza built around the gas clothes dryer. The only information available on this score is that a consulting marketing specialist, nationally known for his unusual talent in presenting a sales demonstration before a customer, has been secured for this portion of the conference.

Details of the presentation on gas refrigeration have not been completed. But assurance is forthcoming that the whole

subject will be covered from new viewpoints with accents on today's opportunities for increasing this domestic use of gas.

Rounding out the program, and giving a view of general economic conditions as they influence the sale of gas and gas appliances, will be two outstanding speakers from outside of the industry. Robert F. Hurleigh, prominent WGN news director and WGN-Mutual news commentator, will tell how present day economic and social history can guide the formulation of plans for the gas industry.

Dr. William A. Paton, School of Business Administration, University of Michigan, and author of *Shirtsleeves Economics*, will explore the position of free en-

terprise in present economy. For this analysis, Dr. Paton will draw upon his broad practical experience as an economist for gas utilities and other business concerns.

"All of the conference meetings are keyed to the preservation and increase of our domestic gas load," Chairman George D. Wells, new business manager, The Gas Service Co., Topeka, explains. "Our future is largely in the hands of American housewives. It would appear therefore that women in home service and in other gas utility positions bearing on public relations, as well as the wives of gas industry delegates, would be interested in the program that has been set up for the 1953 Mid-West Regional Gas Sales Conference."

Sales-boosting program set for Eastern Regional Conference

The Eastern Natural Gas Regional Sales Conference, under the direction of Howard B. Yost, sales engineer, Hope Natural Gas Co., Clarksburg, W. Va., as chairman, will be held at the William Penn Hotel, Pittsburgh, May 4th and 5th, 1953.

This conference will feature sales-slanted presentations by top executives, from within and without the gas industry, relative to some of the industry's paramount sales problems. Each year it attracts wide attendance from gas company sales executives and sales managers, and representatives of the gas appliance manufacturers.

The keynote address, "Sell or Shrive," will be delivered by Frank C. Smith, president of the Houston Natural Gas Co., and president of A. G. A. Mr. Smith will describe the sales and promotional recommendations directed to the gas utility industry by the A. G. A. Board of Directors as a result of months of intensive study and effort by the A. G. A.-GAMA Liaison Committees. These committees were organized to analyze the most important problems in the fields of sales, service and promotion.

"Take a New Look" will be the title of an address by Lyle C. Harvey, past president of GAMA, and general manager of the Bryant Heater Division, Affiliated Gas Equip. Inc. He will discuss the recommendations made to the gas appliance industry by the GAMA Board of Directors, based on the GAMA Liaison Committee's work.

Hansell Hillyer, president and general manager, South Atlantic Gas Co., Savannah, will discuss "Building the Base Load." In his presentation he will feature the sales and promotional techniques utilized by his company in the promotion and sale of manufactured gas in the residential market.

Cognizant of the importance of service and its relation to sales, R. E. Williams, manager, of the Binghamton (N. Y.) Gas Works, will address the conference on "Service—A Key to Sales."

The gas industry has a vital stake in the vast new-home market, which is important not only in itself but by reason of the fact that new homes set the pattern for the modernization of existing homes. James E. Cook, manager, utilization division, Consolidated Edison Co. of N. Y., Westchester division, Mt. Vernon, N. Y., will deliver a paper, "Selling the New-Home Market."

The subject of sales motivation and sales training will be discussed by a nationally known sales executive whose company has been particularly successful in selling his company's products to the American consumer.

J. G. Berwanger, dealer promotion manager, of The Ohio Fuel Gas Co., Columbus, will preside as chairman for the Tuesday session.

The gas industry has only seven services to sell to the American homemaker as against many times that number by our competitors. The major part of this

session will be devoted to a presentation entitled "Seven Keys to Progress," designed to influence the promotion and sale of all residential gas services by our industry.

H. Vinton Potter, A. G. A. coordinator of advertising and promotion, will "kick-off" the presentation by emphasizing the necessity for gas utility companies to promote each of the seven residential uses. He will also outline A. G. A. sales programs and materials designed to assist gas companies in this effort in their respective areas.

Well-qualified representatives of gas appliance manufacturers will discuss markets, value of the load and the sales and promotional aspects of each of the seven residential uses. These speakers will include: J. G. Dierkes, general manager, Bowser Inc., Cairo, Ill., who will discuss gas incineration; C. C. Owen, sales promotion manager, Surface Combustion Corp., Toledo, gas house heating; John A. Gilbreath, asst. vice-president in charge of air conditioning division, Servel Inc., Evansville, gas all-year air conditioning; O. J. Haagen, Tappan Stove Co., Mansfield, Ohio, gas ranges; Al Lee, director of utility division, Servel Inc., on gas refrigerators; Frank McFerran, general sales manager, Ruud Manufacturing Co., Pittsburgh, gas water heating; and Don H. Davidson, sales promotional manager, Whirlpool Corp., St. Joseph, Mich., gas clothes drying.

Form submersible coating distributor

ORGANIZATION of The Flotation Co., Inc., Elizabeth, N. J., has been announced by K. G. Hall, president and E. R. English, vice-president and general manager. The company has been approved as exclusive applicator of Aqua-Seal protective coatings to the submersible areas of water-sealed gas holders by the flotation process.

Flotation painting of water-sealed gas

holders is accomplished by the floating of a special formulation paint upon the water of the seal of a lift. Lowering and then raising the lift causes the automatic impregnation, due to the hydraulic pressure of the tank water, of all surface areas regardless of condition, and results in a completely uniform distribution of paint.

Record membership reported at NEGA annual convention

JESSE L. JOHNSON, vice-president of Providence (R. I.) Gas Co., was elected president of the New England Gas Association at the annual meeting held in Boston on March 26-27. Other new NEGA officers are: Roy E. Wright, director of gas sales, NEGEA Service Corp., Cambridge, first vice-president; Harold E. Ayer, assistant general manager, Lynn Gas & Electric Co., second vice-president; Otto Price, vice-president, Boston Consolidated Gas Co., treasurer; and Clark Belden, managing director of NEGA, clerk.

An all-time attendance record was made in the registration of 777 delegates at the convention.

Featured as a speaker at the first session was Frank C. Smith, president of the Houston Natural Gas Corp., and president, American Gas Association. Mr. Smith's talk, entitled "United for Action," stressed the importance of an industry-wide united front for concerted action. He also discussed the program of A. G. A.'s new Gas Industry Development Committee and the proposed gas industry public relations program.

Encouraging membership figures were reported by Clark Belden. Seventeen new member companies joined the association this year, and Mr. Belden announced that, during the past seven years, there has been a net increase of 94 percent in company membership. Present membership is 363 companies.

Other speakers scheduled for the first session were: James F. Donnelly, vice-president in charge of sales, Servel Inc., and president, Gas Appliance Manufacturers Association; Sherman R. Knapp, past-president of NEGA and president, The Connecticut Light & Power Company.

The Thursday afternoon meeting was devoted to a panel, "Operating Experiences with Natural Gas." The moderator was Andrew W. Johnston, distribution engineer Boston Consolidated Gas Co., and newly elected chairman of the NEGA Operating Division.

Panel members were Calvin A. Brown, Rochester Gas & Electric Corp.; Fred H. Bunnell, Consumers Power Co., Jackson, Mich.; William R. Fraser, Michigan Consolidated Gas Co., Detroit; Theodore C. Moran, Niagara Mohawk Power Corp., Syracuse; John H. Wolfe, Consolidated Gas Electric Light & Power Co. of Baltimore; Fred H. Faulstich, Springfield (Mass.) Gas Light Co.; Herbert C. Jones, New England Electric System, Malden, Mass.; and David W. Price, The Connecticut Light & Power Co. and The Connecticut Gas Co., Berlin.

The Friday morning session was opened by Martin J. Coughlin, secretary and assistant treasurer of The Hartford Gas Co., who spoke on "Budgets and Control." Roy E. Wright, the association's new second vice-president, then told "What Sells Gas." Other speakers at the Friday morning meeting were Virgil L. Rankin, public relations professor, Boston University School of Public Relations and Communications, "Public Relations and Successful Management;" and E. H. Eacker, president of Boston Consolidated Gas Co., and first vice-president of A. G. A., "Let's Chart a Direct Course." Mr. Eacker revealed that preliminary figures on gas industry safety during 1952 indicate a decrease in frequency rate of almost 30 percent, the best record in the gas industry in over 20 years. Mr. Eacker stated that this record was achieved through much effort by many gas companies. He also spoke about the A. G. A.'s efforts, through its Executive Safety Committee; the new pressure piping code, ASA B-31; and accident prevention. He told also of the many ways in which distribution design, maintenance and operation were being improved constantly.

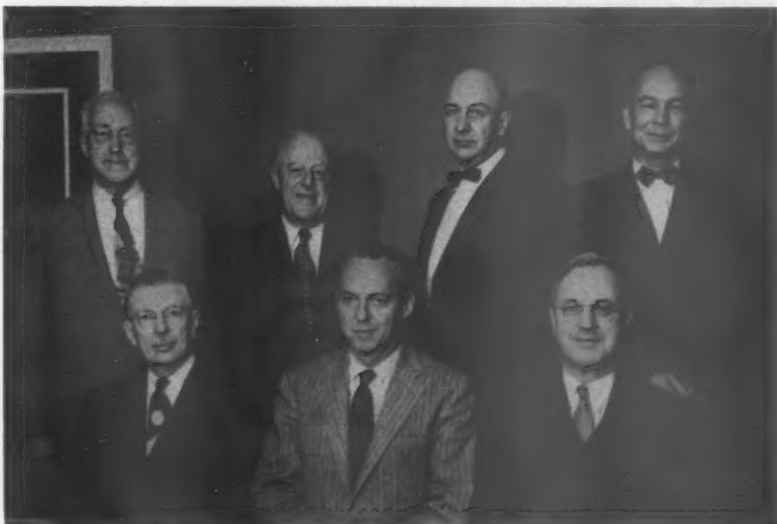
The last session of Friday afternoon was

devoted to "Increasing Gas Sales," a panel moderated by J. J. Quinn, vice-president in charge of sales, Boston Consolidated Gas Company.

Panel members were: Charles R. Davis, Ebasco Services, Inc., New York; Wallace M. Chamberlain, Michigan Consolidated Gas Co., Grand Rapids; Henry A. Diekmann, The Brooklyn (N. Y.) Union Gas Co.; Gordon M. Jones, United Gas Improvement Co., Philadelphia; Harry A. Sutton, Public Service Electric & Gas Co., Newark; John A. Hiller, Portland (Me.) Gas Light Co.; Joseph K. Rainey, New Bedford (Mass.) Gas and Edison Light Co.; Donald R. Schively, The Hartford (Conn.) Gas Company.

H. Dorothy Keller, chairman of the NEGA Home Service Group, and home service director, Blackstone Valley Gas & Electric Co., presided over a home service luncheon and meeting on Friday. Gas utility executives and representatives of manufacturers and sales distributors were invited.

Jessie McQueen, home service counsellor, American Gas Association, was the featured speaker. Miss McQueen's topic was, "Interesting Workshop Developments."



Leaders of New England Gas Association gather at annual session in Boston. Seated, left to right: Jesse L. Johnson, Providence Gas Co., incoming president; Sherman Knapp, The Connecticut Light & Power Co., outgoing-president; R. E. Wright, NEGEA Service Corp., 1st vice-president. Standing: G. G. Howie, Cambridge Gas Light Co., chairman, Nominating Committee; Otto Price, Boston Consolidated Gas Co., treasurer; Harold Ayer, Lynn Gas & Electric Co., 2nd vice-president; Clark Belden, NEGA, clerk

Texas gas executive calls for broadened tax base

THE RISING THREAT of increased taxes on natural gas has aroused a sharp protest from Chester L. May, vice-president, Lone Star Gas Co., Dallas. Mr. May is calling for "a broadening of the tax base so that other sources would more nearly carry their share of the tax burden." His action is reflected in a letter cautioning Lone Star industrial consumers that "additional taxation of Texas natural gas would further discriminate against industry of the state."

Mr. May points to the popular theory of taxing natural resources, particularly natural gas, "by those individuals and groups who are opposed to taxes on themselves but who want high taxes to be paid by others."

"In pursuit of this theory," he states, "little thought apparently is given to the fact that the vast industrial expansion program in Texas during the last several years has been sparked by abundant and low cost fuel in the form of natural gas."

He contends that gas going into interstate

pipelines cannot be taxed without the same tax being imposed on the gas used in Texas.

"Considerably more than half the gas produced in Texas is consumed in Texas," he states, "and our own Texas people are therefore paying more than 50 percent of the natural gas taxes. Many people seem to think that gas is leaving Texas free of taxes. This is untrue, because for every \$100 paid for purchased gas by these interstate companies they must pay to Texas the heavy tax of \$12.15."

Mr. May charges that the natural gas industry—"and consequently the users of natural gas"—has been and is now taxed beyond the rate at which other major natural resources are taxed.

"By comparison," he says, "the state tax levied on the occupation of producing and gathering natural gas averages 12.15 percent of value while the oil industry pays 4.60 percent and sulphur eight percent. Numerous other natural resources with a total annual value of over \$500 million pay no special

state tax whatsoever. Yet, the legislature usually concentrates its tax attack on only oil, gas and sulphur. When it does so it fails to carry out the constitutional mandate that taxes shall be equal and uniform."

"Under present tax laws," Mr. May contends, "the three natural resources of natural gas, oil and sulphur pay at the production and gathering level over 34 percent of the state's total tax bill of approximately \$449 million. Added to this, of course, are millions of dollars paid by these industries in connection with other phases of their business. Why should taxes on natural gas be made still more punitive?"



C. L. May

Wisconsin Public Service honored for encouraging vote

FOR AN OUTSTANDING program "to get out the vote" last Fall, Wisconsin Public Service Corp. has been awarded the Freedoms Foundation George Washington Honor Medal and one hundred dollars.

The award, one of 800 given to individuals, schools and organizations, is part of the foundation's program to recognize contributions to a better understanding of American life during 1952.

The Public Service program consisted of both employee information and public in-

formation activities. A five-man speaking team visited most of the cities served by Public Service in making a panel board presentation entitled "The Power of Your Vote." In all, 76 appearances were made before civic clubs, churches, schools, and employee groups, totalling 13,476 people.

The Green Bay and Wisconsin Valley divisions of the corporation competed in a contest that succeeded in gaining 100 percent registration of all employees in both divisions. The Green Bay division also succeeded in

obtaining a 100 percent vote, and the Valley division missed by one man who was stricken suddenly and under doctor's orders not to be moved. Other phases of the over-all prize-winning program included newspaper ads, window displays, bulletin board posters, and articles in *Contact News*, the Public Service employee magazine.

Public Service will receive its award at one of the regional ceremonies to be held in 50 cities throughout the nation during March, April and May.

Refrigerator takes bow at Seattle home show



Charles M. Sturkey, vice-president and general manager of Seattle Gas Co., cuts ribbon unveiling new Servel automatic ice-maker refrigerator at Seattle's ninth annual home show. Eager to see 1953 design are Bea Donovan (center), Seattle television star, and Prudence Penny, home economist of the Seattle Post-Intelligencer, home show co-sponsor. Gas company booth also featured advent of natural gas in the Pacific Northwest, with pipeline map and section of 26-inch pipe

PCGA to meet in Victoria

FIRST INKLING of the 1954 Pacific Coast Gas Association meeting reveals that it will be held in Victoria, the capital city of British Columbia. The dates are September 8-9-10, 1954 and Clifford Johnstone, PCGA managing director, announces that, because of this vacation region's popularity, reservations must be made a year or more in advance. Arrangements have been made with a travel agency for those members who wish to combine the convention with a vacation trip to Alaska or Vancouver-Jasper-Banff.

Denver spurs dryer sales

THE AUTOMATIC gas clothes dryer got a sales boost recently when the Rocky Mountain Gas Association met in Denver on March 12.

Highlight of the program was a skit to prod dealers and plumbers into a realization of gas dryer sales opportunities. Fred P. Berger, president, Colorado Master Plumbers Association, starred in the play, which showed how new gas dryers can be sold when the dealer is taking orders for plumbing, heating equipment or repairs.

Natural gas common stock prices and dividends higher

THE COMPOSITE price of natural gas company common stocks on January 30 was approximately six percent higher than a year earlier. Simultaneously, the average dividend payment per share was advanced 14 percent so that the current composite yield on these stocks is seven percent higher than during the comparable week a year ago.

These data are disclosed in a new series of weekly market price, dividend and yield indexes for common stocks of natural gas companies being published in its weekly public utility supplement by Moody's Investor Service. The American Gas Association will release monthly recapitulations of this information.

Indexes are being presented, representative of the natural gas industry as a whole and of its two principal subdivisions. The first category includes 30 companies whose stocks are being traded on organized exchanges or have an active over-the-counter market. It is composed of 10 transmission companies, 10 distributing utilities and 10 companies having both natural gas transmission and distribution operations. Separate indexes will group the 10 companies having only transmission operations and the 10 distributing gas utilities.

Current and historical market appraisal of straight natural gas company common stocks will be reflected in these indexes. Most exist-

ing utility indexes refer primarily to electric company or combination company securities and thus measures such market appraisal inaccurately. Straight gas company indexes that

do exist are generally based on too few companies to be adequately representative of the entire industry. The current indexes were developed to overcome this defect.

NATURAL GAS COMPANY STOCK PRICES, DIVIDENDS AND YIELDS

	1953					1952	Ranges
	Jan. 30	Jan. 23	Jan. 16	Jan. 9	Jan. 2	Feb. 1	1952-1953
30 Natural Gas Common Stocks*							
Price (\$ per share)	29.19	28.89	28.97	29.10	29.18	27.53	29.18-29.97
Dividend (\$ per share)	1.41	1.41	1.41	1.41	1.41	1.24	1.41- 1.24
Yield (%)	4.83	4.88	4.87	4.85	4.83	4.50	5.39- 4.48
10 Gas Transmission Common Stocks							
Price (\$ per share)	35.95	35.57	35.65	35.84	35.73	33.14	35.84-30.96
Dividend (\$ per share)	1.63	1.63	1.63	1.63	1.63	1.28	1.63- 1.28
Yield (%)	4.53	4.58	4.57	4.55	4.56	3.86	5.23- 3.86
10 Gas Distribution Common Stocks							
Price (\$ per share)	20.89	20.79	20.80	20.85	20.85	19.95	20.85-19.07
Dividend (\$ per share)	1.06	1.06	1.06	1.06	1.05	0.95	1.06- 0.95
Yield (%)	5.07	5.10	5.10	5.08	5.04	4.76	5.19- 4.74

* Includes 20 gas transmission and distribution stocks included above plus stocks at 10 integrated gas companies.

Southerners plan huge annual meeting

THE 45TH ANNUAL Southern Gas Association convention, New Orleans, May 11 to 13 is attracting the heaviest advance registration in the organization's history. More than 1,800 persons will attend the three-day program.

Featured speakers will be Senator Everett M. Dirksen of Illinois and Dr. Alfred P. Haake, noted economist and consultant to General Motors.

Other important messages will be delivered by Frank C. Smith, president of Houston Nat-

ural Gas Corp., and of American Gas Association; John H. Wimberly, executive vice-president, Houston Natural Gas Corp., and president of Southern Gas Association; Gene Flack, sales counsel and director of advertising for Sunshine Biscuits, Inc., New York.

Chairman of the 1953 convention committee is Charles F. Stubbs, Alabama Gas Corp., Birmingham. Vice-chairmen are Curtis M. Smith, Tennessee Gas Transmission Co., Houston, and Charles Lockhart, Jr., of Bryant

Heater Div., Dallas. W. M. Nunn, Sr., New Orleans Public Service, is chairman of local arrangements.

Arranging section programs are the following chairmen: Louis G. James, Lone Star Gas Co., Dallas, accounting; R. A. Metzke, United Gas Corp., New Braunfels, Texas, distribution; H. M. Rogers, Texas Eastern Transmission Corp., Shreveport, employee relations; J. W. Lea, Atlanta Gas Light Co., sales; C. L. Perkins, El Paso Natural Gas Co., transmission.

Gas industry sales and revenues rise in fourth quarter

TOTAL revenues of gas utilities from sales of gas to ultimate consumers (not including sales to other utilities for resale) for the fourth quarter of 1952 were \$668 million, a gain of 14.7 percent over revenues of \$582 million in the comparable quarter of 1951 the A. G. A. Bureau of Statistics reports. For the 12 months ended December 31, 1952, revenues from sales to consumers totaled \$2,437 million, a rise of 10.4 percent over \$2,207 million in the previous 12-month period. Industrial gas revenues rose 14.9 percent during the 12-month period, while residential revenues gained 8.4 percent.

The total revenues of gas utility and pipeline companies, including revenues from sales for resale, during the 12 months ended December 31, 1952, amounted to \$3,410 million. After deduction of operating expenses, taxes, depreciation, retirement and amortization, net operating revenues were \$470 million. Net income for the period was \$340 million, while total taxes paid by the industry amounted to \$500 million.

Sales of gas in the fourth quarter of 1952 amounted to 14,324 million therms, an increase of 14.1 percent over 12,551 million therms sold in the like quarter of 1951. For the 12 months ended December 31, 1952, sales of gas aggregated 52,378 million therms, an advance of 8.8 percent over 48,134 million therms in the comparable period a year earlier.

On December 31, 1952, a total of 26.2 million customers of all classes were receiving utility gas, an increase of about 4.4 percent over 25.1 million customers served a year earlier. Of this total, there were 24.2 million residential customers on December 31, 1952, a gain of 4.3 percent or 994,000 domestic customers in the 12-month period.

Revenues from the sale of natural gas to ultimate customers during the fourth quarter of 1952 were \$555 million, an increase of 22.0 percent over \$455 million a year earlier. For the twelve months ended December 31, 1952, natural gas revenues were \$1,954 million, or 17.2 percent above revenues of

\$1,667 million in the previous twelve month period.

Sales of natural gas in the fourth quarter of 1952 were 13,525 million therms, up 15.4 percent over 11,719 million therms sold in the like 1951 quarter. For the twelve months ended December 31, 1952, natural gas sales totaled 49,074 million therms, a gain of 9.7 percent over sales of 44,718 million therms in the previous twelve months.

Customers served with natural gas on December 31, 1952, aggregated 19.5 million, and represented 74.5 percent of total gas industry customers. A year earlier there were 17.1 million natural gas customers, representing 67.9 percent of total customers of the industry.

Sales of manufactured and mixed gas declined 5.9 percent during the fourth quarter of 1952, while revenues in this classification were down 11.2 percent. These declines are attributed to conversions from manufactured and mixed gas to natural gas distribution in several areas.

Houston Natural forms exploration, development subsidiary

ANNOUNCEMENT has been made of the formation and chartering of the Houston Natural Gas Production Co. as a wholly-owned subsidiary of the Houston Natural Gas Corporation.

The Houston Natural Gas Production Co. will undertake a program of general exploration and oil and gas development, as well as acquire substantial gas reserves.

Dr. Byron B. Boatright, consulting petroleum and natural gas engineer, has been elected vice-president and general manager of the production company. Also elected as officers, are Frank C. Smith, president; J. H. Wimberly, executive vice-president; John B. Cook-

enboo, treasurer; and Kenneth Fellows, secretary, all of Houston. Directors include Messrs. Smith, Wimberly, Boatright, Cookenboo, and Joseph F. Wolff of Corpus Christi.

For the past several years, Dr. Boatright has maintained headquarters in Austin while serving as consultant for more than 40 major oil and gas companies, banks and independent firms throughout the United States, Canada and Mexico.

Dr. Boatright holds an E.M. degree from the Colorado School of Mines, and received his Ph.D. from the University of Colorado. He was head of the department of petroleum engineering at the Colorado School of

Mines from 1928 to 1936, and thereafter came to Houston to enter business as a consulting engineer. He left Houston in 1946 to become vice-president and chief engineer for Republic Natural Gas Co., Dallas, and subsequently moved to Austin as first vice-president of the Conroe Drilling Company.



Dr. Byron Boatright

Utility advertising men's annual convention in St. Louis

PLAN FOR THE 1953 Public Utilities Advertising Association's annual convention, Hotel Chase, St. Louis, on May 7-8, are rapidly nearing completion.

Featured as a luncheon speaker on Friday will be James F. Oates, Jr., chairman of the board, The Peoples Gas Light & Coke Co., Chicago, chairman of the American Gas Association Promotion, Advertising and Research (PAR) Committee.

Elon Borton, president of the Advertising Federation of America, will sound the keynote right after the officers' reports at the opening session. His topic will be "Why PUAA and Other Advertising Associations."

Mr. Borton will be followed by a television clinic with J. G. Baird, promotion manager of Westinghouse, explaining the benefits of a national TV program. R. D. Lewis, advertising and publicity manager of Laclede Gas Co. will then discuss the values of a local TV program. The clinic will be climaxed with a discussion of ultra-high frequency and other tele-

vision developments by J. L. Van Valkenburg, president of CBS television.

B. L. England, president of the Edison Electric Institute, will be the noon luncheon speaker on "Institutional Problems of the Electric Utility Industry." In the afternoon session on May 7, the speakers will be William A. Blees, vice-president in charge of sales, Crosley Div., Avco Manufacturing Co., who will discuss appliance industry sales problems. Harold Barnes, director of the advertising bureau, American Newspaper Publishers Association, will talk on this still important medium. Glenn Green, national education program, Harding College, will then document the public utility district election in Jackson County, Ark., showing how its plan was identical with that laid down by the Socialist Party in the 1920's to take over the electric utility industry.

George Straub, Chicago, western art director of Outdoor Advertising, Inc., will complete the afternoon with a talk on "How to

Ruin a Poster."

On Friday, the morning session will be opened by a discussion of "Organizing and Administering an Advertising Budget for a Public Utility," by Robert H. Bridges, advertising manager, Cleveland Electric Illuminating Co. and chairman of PUAA's advertising costs survey. The remainder of the morning session will be devoted to a symposium on communications. Speakers at the symposium will be John Fistere, *Fortune* Magazine; William G. Werner, president of the Public Relations Society of America and manager, public relations department, Procter and Gamble; Robert Feemster, *Wall Street Journal*; and Richard G. Baumhoff, St. Louis *Post-Dispatch*.

Friday afternoon will be devoted to the annual business meeting and with announcements of PUAA Better Copy Contest winners.

Walter G. Heren, first vice-president of PUAA, is chairman of the St. Louis Convention Committee.

Pocket booklet guides range conversion burner installation

A NEW 40-page pocket size American Standard covering the installation of gas conversion burners in domestic ranges has been printed and made available by the American Gas Association Laboratories. Adequately illustrated and intended as an installation guide for gas equipment installers, it outlines the

precautions that must be observed when installing such equipment and the test methods that must be used to assure proper operation.

The publication makes available for the first time an authoritative standard for the examination of range conversion burner installations by local authorities in the field, and

the preparation of local codes or ordinances for such installations.

Known as American Standard Requirements for Installation of Gas Conversion Burners in Domestic Ranges, copies may be obtained from the A. G. A. Laboratories, 1032 East 62nd St., Cleveland 3, Ohio, for 25 cents each.

LP-Gas plans conventions, sales training and ad campaign

MEMBERS OF THE liquefied petroleum gas industry will gather at a national and three district conventions scheduled by the LPGA in April, May and June.

The national convention and trade show, to be held May 3-6 in Chicago's Conrad Hilton Hotel, will attract about three thousand persons. The trade show will feature 196 booths displaying latest LP-Gas equipment.

The district meetings and trade shows will be held: Central States District, April 6-8, Oklahoma City; East Canada District, April 9-10, Montreal, Quebec; Mountain States Dis-

trict, June 14-16, Evergreen, Colorado.

Other news from the liquefied petroleum gas industry is highlighted by the announcement of a complete LP-Gas sales training course by the National Committee for LP-Gas Promotion. The course consists of eight booklets which cover every phase of gas and gas appliance salesmanship. Another helpful publication, *Bulk Plant Directory*, is now in print and ready for distribution. The 78-page book gives an accurate, complete roster of large LP-Gas marketers.

Complete information about both the train-

ing course and the directory may be obtained from the National Committee for LP-Gas Promotion, 11 South LaSalle St., Chicago.

Important to the industry is the LP-Gas Information Service's spring advertising campaign. The ads, which will stress the economy and convenience of automatic LP-Gas water heating, will aim at America's rural consumers, reaching them through such publications as *Country Gentleman*, *Farm Journal*, *American Home* and many others. Secondary emphasis will be given to LP-Gas crop drying and incineration.

Federal Power Commission grants several rate increases

THE FEDERAL POWER COMMISSION has authorized a \$749,000 annual wholesale natural gas rate increase by Northeastern Gas Transmission Co., Springfield, Massachusetts. The commission also allowed Northeastern to retain all funds collected under bonds since April 1, 1952, when the increase went into effect subject to refund of amounts subsequently disallowed. The new rates provide for a maximum average charge of 53 cents per thousand cubic feet during Northeastern's developmental period as compared with 46 cents under the old rates.

Several gas companies have recently been granted rate increases by the Federal Power Commission, under the provision in the Natural Gas Act which states that a rate increase shall become effective after a five-month suspension period if the proceeding has not been concluded.

Suspended wholesale natural gas rate increases by two Columbia Gas System subsid-

aries, Central Kentucky Natural Gas Co. and United Fuel Gas Co., became effective on February 15.

The increases had been filed with the FPC last August and were suspended on September 12.

Central Kentucky's increase amounts to about \$1,085,000 per year and United Fuel's totals approximately \$6,974,000 annually.

The commission has also issued orders making effective the suspended wholesale natural gas rate increases of Hope Natural Gas Co. and Alabama-Tennessee Natural Gas Company.

These companies, too, had filed motions with the FPC requesting that the increases, which have been under suspension since last summer, be made effective.

Hope's increase totals approximately \$2,334,000 per year, and Alabama-Tennessee's will be about \$30,000.

Suspended natural gas rate increases by

Tennessee Gas Transmission Co. also became effective on February 15. The increase which amounts to about \$17,850,000 per year, was suspended by a commission order last September 12. The commission has permitted suspended wholesale natural gas rate increases by Atlantic Seaboard Corp., Virginia Gas Transmission Corp., and Commonwealth Natural Gas Corp. to become effective.

The increase proposed by Atlantic and Virginia, both subsidiaries of The Columbia Gas System, Inc., amounts to about \$4,318,000 annually. Commonwealth's totals about \$516,000 per year.

All the gas companies involved must refund, together with interest at the rate of six percent per year, any portions of their increases subsequently found unjustified by the commission. The companies must keep accounts of all amounts received by reason of increases and report these to the FPC every month.

Committee studying revision of LP-Gas Utility Code

THE LP Gas Utility Code Committee Pamphlet 59 of the National Fire Protection Association known as the LP Gas Utility Code has not been revised since it was originally prepared in 1948.

Recently the A.G.A. LP Gas Utility Code Committee was reactivated under the chair-

manship of W. R. Fraser of the Michigan Consolidated Gas Company. Its membership reflects the interests of utility companies, LP-Gas producers, equipment builders, consulting engineers, and others.

During a two-day meeting held in New York on January 28 and 29, 1953, the dis-

cussion of various recommendations for changes and additions in the standard indicated a lively interest in modernizing this standard. The committee intends to complete its studies at the next meeting, after which the proposed modifications will be sent to the NFPA Committee on Gases for consideration.

House organ articles describe and picture gas utility operation

FROM source to consumer, the story of gas was told in a "Know Your Company" series presented by the Public Service Electric and Gas Co., Newark, New Jersey. Comprehensive word, picture and diagram coverage of gas and electric operations was prepared by Joseph

A. Gallagher, editor, and S. Earle Clauss, associate editor of *Public Service News*.

The company's gas system, fourth largest in the number of customers served, has seven plants manufacturing carburetted water gas with a combined daily mixed gas capacity of

470 million cubic feet. First part of the two-installment story carried operations from fuel barge to storage holder. The rest of the story was continued from there to a delicious roast shown being removed from a customer's gas range oven.

Grant safety certificates

CLIMAXING TWO WEEKS of intensive study, 21 delegates to Ebasco Services' sixth seminar in public utility safety were awarded certificates on February 27 during commencement exercises at the Downtown Athletic Club, New York City.

Conducted by Ebasco Services Inc., in co-operation with New York University's Center for Safety Education, these annual seminars are designed to instruct utility staff and operating personnel in both basic and advanced principles of employee safety.

A new feature of the current seminar was a daily session devoted to analysis and discussion of factors commonly found in successful safety programs. Studied also were the elements of effective speaking, safety training, improved human relations and the fundamentals of successful supervision, as well as specific problems of fire prevention and protection and motor vehicle safety. Field inspections made by the group included visits to the training school of Long Island Lighting Co., the safety departments of Consolidated Edison Co., and the plant and proving grounds of the C.O.-Two Fire Equipment Company.

A. G. A. Advertising Committee meets



Members of A. G. A. National Advertising Committee meet in Los Angeles with range and water heater members of Pacific Coast Gas Association's Manufacturers Section. Standing (left to right): W. M. Jacobs, vice-president, Southern California Gas Co.; J. S. Moulton, president, PCGA; W. B. Hawson, chairman, A. G. A. National Advertising Committee; R. E. James, chairman, Water Heater Division, PCGA

Germans introduce gas range design improvements

NEW developments of gas range design by German manufacturers include oven burners which can be rotated to control top and bottom heat, and an ignition system designed around a self-energized magnetic coil.

Seppelfricke Co., range manufacturers, Gelsenkirchen, Germany, sells a gas range in which ignition is accomplished by a high tension spark produced by a self-energized magnetic coil. The schematic diagram illustrates the action. In detail, a high tension spark produced by pulling the ignition lever lights the top burner lighter pilot. Gas reaches this pilot by the movement of the lever. Then the gas is ignited and, the fraction of a second later at the end of the lever movement, the gas pilot is completely shut off. In the meantime, the top burner has been lighted. The same scheme is being applied to the oven with suitable safety controls added.

The pilot used for this device is of the spreader type and no flash tubes are utilized.

Another recent German range development uses gas range oven burners which can be rotated to vary the percentage of top and bottom heat considerably.

The manufacturer indicates that top heat can be increased as much as 35 percent by turning the burners so that the flames rise vertically. When the burners are turned so that the flames are horizontal a greater percentage of broiler or oven bottom heat is obtained. An extra dial permits positioning of these burners.

Another German manufacturer approaches the same problem by providing four burner arms for the oven burner; the center two are supplied by one position of the gas cock and the other two by another position. All four can be operated at once if desired.

The effect of this arrangement is to permit greater concentration of bottom heat when the center pair of burner arms is operating and greater top heat when the outer pair only is used.

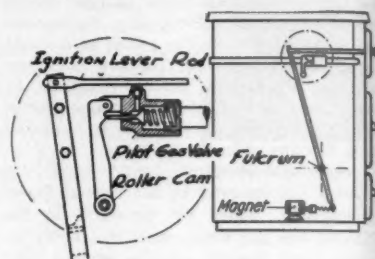


Diagram of new design

Augur success for GAMA annual meeting in White Sulphur

NEW ATTENDANCE RECORDS for annual meetings of the Gas Appliance Manufacturers Association will be set at the three-day 1953 session scheduled for White Sulphur Springs May 20, 21 and 22.

C. D. Lyford, vice-president of Minneapolis-Honeywell Regulator Co., and chairman of GAMA's program committee, reported during March that over 400 advance registrations had been received, more than for any other previous convention.

Although formal sessions will not open

until Wednesday, May 20, registration and a board of directors meeting and dinner will be held on the preceding day. Wednesday will feature meetings of the domestic gas range, house heating, water heater and relief valve divisions in the morning, a general session luncheon followed by meetings of the clothes dryer division, unit heater, conversion burner and boiler groups.

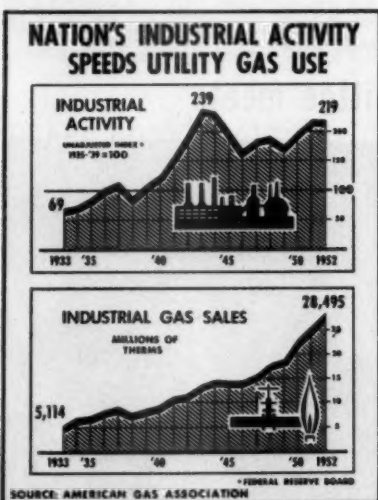
Thursday's program calls for a general session opening at 9:30 am, a general session luncheon at noon and meetings of the

meter and regulator, incinerator and appliance regulators divisions and the furnace and floor furnace groups.

Awards for meritorious service will be presented Thursday night at the traditional president's dinner, according to Mr. Lyford.

There will be meetings of the water heater, valve, controls and direct heating divisions and the vented recessed heater group Friday morning. An "open-mike" luncheon starting at 12:30 pm will conclude the three-day program.

Gas speeds defense



U. S. industrial output and defense program are advanced by gas utility industry postwar growth. Industrial use of gas has doubled since World War II, increased sixfold in last 20 years

Judgment

● Often a dash of judgment is better than a flash of genius—Howard W. Newton, *Think*.

Lone Star opens Midland office

LONE STAR GAS CO. and its subsidiary, Lone Star Producing Co. are operating from new West Texas exploration and gas supply headquarters in Midland.

All activities around oil and gas developments in West Texas and New Mexico now will be handled out of the Midland office. Gas company procedure to be handled from the office includes scouting operations, gas purchase contracts, while the producing company

will handle oil and gas development, exploration and related subjects.

G. A. Plummer has been named district manager. Other personnel assigned to the office include Ernest J. Sneed, production foreman; Harry Otell, production engineer; Lane Horstman, geologist; John A. Cochran, land agent; Treves Huddleston, district scout and B. D. Reynolds, his assistant.

Utility adopts employee stock-purchase plan

EMPLOYEES OF THE ZENITH Gas Co., Alva, Okla., have voted to adopt a stock purchase plan. The plan, supported by workers and executives alike, will make it possible for employees to buy 40 percent of the company's stock. Acquisition of the securities will be handled by the Zenith Stock Purchasing

Trust, specifically organized for the job.

The Zenith utility, formed in 1933 from the gas interests of the Winchester Oil and Gas Co. and Carlton Pipe Line Co., serves nine towns in northwest Oklahoma and southern Kansas.

Stewart-Warner expands

THE U.S. MACHINE CORP., Lebanon, Ind., is now a division of Stewart-Warner Corporation. Acquisition of the company, which manufactures a comprehensive line of coal, oil and gas burning equipment for domestic, commercial and industrial requirements, took place on January 9, 1953. J. S. Knowlson, president of Stewart-Warner, de-

clared that the announcement marks the corporation's first major step in its intention to gain a leading position in the home heating industry.

Present management and operating personnel will continue in their positions, with Carl J. Winkler as head of the division.

Plan Canadian annual meeting for June

THE CANADIAN GAS Association will hold its 46th annual meeting and convention at the Windsor Hotel, Montreal, from June 15-18, 1953.

Business sessions will be held on all three days. The annual CGA Golf Tournament is scheduled for the 16th, while the dinner

dance and president's reception will take place on June 17.

Further details concerning the program can be obtained from W. A. Higgins, executive secretary of the association at 6 Adelaide St., East, Toronto. Reservations for hotel accommodations should be made direct to the hotel.

Teach gas mask use

FAMILIARITY with wearing a gas mask while repairing gas leaks is the goal of system-wide courses in the use of the Mine Safety Appliance combination hose mask, sponsored by the Peoples Natural Gas Co., Pittsburgh.

The course will benefit both the consumer and the utility's service employees, Leo Nuhfer, safety director, explained. It will enable

the worker to give prompt repair service in normally inaccessible locations, protected against the danger of blacking out while on duty.

All field district and divisional service area personnel will take the course. In previous years, the company held classes in fire-fighting techniques.

New Autogas plant goes up

THE AUTOGAS CO., Chicago manufacturers of gas appliances for over 30 years, recently began construction of a modern, one-floor building. Located in Bellwood, Ill., the 44 thousand square foot plant is to have full production and shipping facilities, sales and advertising departments, laboratories and offi-

ces under one roof.

Occupancy will take place in August or September, 1953, when large-scale production of the company's automatic gas disposal units, furnaces and conversion burners will begin.

Maryland group holds business meeting

THE MARYLAND UTILITIES Association will hold its annual business meeting on April 17 at the Lord Baltimore Hotel, Baltimore. E. Cleveland Giddings, first vice-president of the association and vice-president of the Capital Transit Co., Washington, will preside over the meeting.

Dr. Buford Brandis, research economist, U.S. Chamber of Commerce, will present an

analysis of economic trends and their expected effect on public utilities. Walter W. Belson, director of public relations, American Trucking Association, Inc., will discuss public relations with particular reference to public utilities. Walter F. Merkel, vice-president, Gartley and Associates, Inc., will outline what the stockholder expects in the way of information from a corporation.

N. J. home service plans one-day session

A MEETING OF New Jersey Gas Association's home service group will be held in the Military Park Hotel, Newark, May 6th. Louise Sherred of the Elizabethtown Consolidated Gas Co., Perth Amboy, is chairman.

Attended by sales and home service mem-

bers of the association, the program will include a discussion of the "Range and its Place in the Home Service Program" by Susan A. Mack, Boston Consolidated Gas Co.; "Research in Gas Appliances" by Lee Robey, co-

ordinator, research; American Gas Association "Home Service in Sales Promotion" by Claire Zillesen, Philadelphia; and "Sales Aspects of the Gas Clothes Dryer" by Edith Ramsey, equipment editor, *American Home*.

Empire safety program pays

THE EMPLOYEES OF THE EMPIRE Gas and Fuel Co., Ltd., celebrated a successful year of safe operations on February 11 at Wellsville, New York.

The celebration climaxed work of the past six years during which time an intensive safety program has been developed under the leadership of C. W. Fuller. The frequency of accidents during that time has decreased from 42.37 to 2.90 and the severity of accidents has been reduced from 1.08 to .078.

Awards to the individuals representing the various operating units were presented by George W. Holbrook, company vice-president. Safe driving awards were received by the drivers, many whom had operated 14 years without an automobile accident.

Chemists' award honors Dr. Fieldner

DR. ARNO C. FIELDNER, chief fuels technologist of the U. S. Bureau of Mines, will be presented with the second annual honor award of the Washington Chapter of the American Institute of Chemists, on April 7.

Dr. Fieldner has been associated with the Bureau of Mines since its organization in 1910. During the first World War, he developed the methods used for testing the efficiency of gas masks, and subsequently, aided in perfecting gas masks for industrial use. Dr. Fieldner has been active in developing standard methods and apparatus for analyzing gas and coal, directed the pioneering work of the ventilation of vehicular tunnels, and has authored more than 400 scientific articles on gas and fuel research. He is an active member of

American Gas Association.

Many honors have been tendered Dr. Fieldner, including the Melchett Medal of the Institute of Fuel of Great Britain in 1942, the Perry Nichols Award jointly awarded by the American Institute of Mining and Metallurgical Engineers and the American Society of Mechanical Engineers, and the Distinguished Service Medal of the U. S. Department of the Interior.

Dr. A. C. Fieldner



Spanking new and the pride of Shreveport is Texas Eastern Transmission Corp.'s 14-story office building. To mark building's official opening, the corporation published an informative, illustrated booklet, giving detailed facts about every floor

Following dinner at the hotel, Dr. Jack Johnson, director of training and education, National Civil Defense Agency, will talk on the effect of atomic warfare and Russia's possession of atomic weapons.

Association President George B. Daniel, president of the Citizens Gas Co., Hagerstown, will open the business session with a report, "The Association's Year."

Brooklyn Union makes three top-level engineering promotions

SEVERAL TOP-LEVEL executive promotions have been made at the Brooklyn Union Gas Co., Brooklyn, New York.

Chief Engineer Samuel Green has been named vice-president and chief engineer; A. Dudley Harrison, formerly assistant chief engineer, is now assistant vice-president; and H. Karl Merker, who also had served as assistant to the chief engineer, is now operating engineer.

Mr. Green started as a clerk in 1912, and has served the Brooklyn utility ever since, except for military service during World War I.

In 1919, Mr. Green was made a superintendent's assistant, and served in this capacity for eight years until 1927, when he was promoted to assistant superintendent.

From 1939 to 1947, he functioned as works engineer, assistant to engineer of manufacture, and engineer of manufacture. In 1948, he was named assistant chief engineer, and in 1951, chief engineer.

Mr. Green has been active in many A. G. A. committees and projects. He is a graduate of Brooklyn Polytechnic Institute.

Mr. Harrison, new assistant vice-president, began his utility career in 1928. In one year,

he was promoted to superintendent's assistant and then engineering assistant. He was made a superintendent in 1938, and assistant general superintendent in 1945. Later that year, he was made assistant engineer of manufacture.

Mr. Harrison became engineer of development and planning in 1946, and in 1948 engineer of manufacture. Promotion to assistant to chief engineer occurred in 1950, and assistant chief engineer in 1951.

Mr. Harrison is known for having developed and constructed a purging machine for producing inert gas. It has been used widely in United States and foreign countries. He also coordinated the metropolitan utility's conversion from manufactured to natural gas.

Mr. Harrison is a graduate of Stevens Institute of Technology. He has served on various



Samuel Green



A. Dudley Harrison



H. Karl Merker

ious A. G. A. committees.

Mr. Merker, new operating engineer, joined the company in 1928 as a general plant foreman. During the next 18 years, he served as general by-product and producer foreman, general oven foreman, assistant superintendent and general superintendent. In 1946, he was made assistant engineer of manufacture, and assistant to chief engineer in 1950.

Mr. Merker is a graduate of the University of Illinois. He, too, has been active in American Gas Association committees.

Personal
and
otherwise

Named to head Gas Service safety activities

CHARLES WILLIAMS has been named to head all safety activities of The Gas Service Co., Kansas City, Missouri.

During the past two years, Mr. Williams has managed a safety campaign for the Kansas City, Mo. division. He has reduced the division's operating department lost-time accidents by 77 percent in 1952 as compared to 1951.

Mr. Williams joined the gas company in April 1946 as a laborer. He was promoted to a leak survey crew, and then to the operating department as clerk. In 1951, he assumed control of the division's safety program.

For the last five years, Mr. Williams

has attended engineering classes at the Kansas City (Mo.) Junior College. He is a member of the Kansas City Chapter, American Society of Safety Engineers; safety committee, Missouri Association of Public Utilities; the American Gas Association; the Kansas City and National Safety Councils.



Charles Williams

O'Brien named treasurer of Peoples Water and Gas Company

J. H. O'BRIEN has been named treasurer of the Peoples Water and Gas Co. of Florida, North Miami. Mr. O'Brien started in the utility business in 1924 in his home town,

Mechanicsville, N. Y. In 1928, he was named assistant treasurer of the Saugerties Gas Light Co., now the Central Hudson Gas & Electric Company.

In 1941, he joined the Peoples Water and Gas Co., where he has been assistant treasurer since 1945.

Alabama promotes top brass

SEVERAL UPPER-echelon personnel changes were announced recently by the Alabama Gas Corp., Birmingham.

Joseph N. Greene, former president, has been promoted to chairman and senior officer; H. Reid Derrick, former vice-president, has been named president. James G. Hall, president of The First National Bank of Birmingham, has been elected a director. Christopher T. Chenery, chairman of Southern Natural Gas, has resigned as chairman of Alabama Gas.

Mr. Greene and Mr. Derrick are both members of A. G. A. and Mr. Derrick serves as a member of the PAR Committee.

Vice-president retires in Brooklyn

ANSEL B. HUYCK, vice-president of The Brooklyn (N. Y.) Union Gas Co. since 1951, retired on April 1 after 20 years' service to the company.

At a testimonial dinner on February 25, Mr. Huyck's career was reviewed for 175 friends and associates. Mr. Huyck started with the company in 1931 as assistant superintendent of the utility's coke oven plant, Greenpoint Works. Subsequently, he served as superintendent of plant, assistant engineer of manufacture, engineer of manufacture, assistant chief engineer, chief engineer and vice-president.

During his tenure, Mr. Huyck originated improvement of coke screening operations and the design of a new type of gum scrubber.

Mr. Huyck, a member of American Gas Association, had been active in the Manufactured Gas Department before its dissolution this year.



A. B. Huyck

Bridgeport names Snell a director, Lindeman vice-president, operations

EARL B. SNELL, controller, has been named a director, and Henry V. Lindeman, engineer, has been elected vice-president in charge of operations of The Bridgeport (Conn.) Gas Light Company.

Mr. Snell has served as controller since joining the utility in 1942, when he resigned as chief of the utilities section, Securities Exchange Commission, Washington.

Before that, he had been employed by the Henry L. Doherty Co. as an accountant, and by the College of the City of New York as a part-time instructor. He is a graduate of Brigham Young University and obtained his master's degree at New York University.

Mr. Snell is a member of American Gas Association.

Before 1951, when Mr. Lindeman joined the Connecticut utility, he was employed as an engineer for Ebasco Services, Inc., New York. During World War II, he served as an executive in the manufactured gas section, War Production Board.

Mr. Lindeman graduated from Pennsylvania State College in 1925, and has spent his entire business career in the gas utility field. He is a licensed professional engineer in New York State, and is active in business groups including the New England Gas Association and American Gas Association.



Henry V. Lindeman



Earl B. Snell

Neely, staff engineer LPGA

CHRIS F. NEELY has been appointed staff engineer of the Liquefied Petroleum Association, to devote his time to the organization's technical and safety activities.

Mr. Neely attended Massachusetts Institute of Technology with a scholarship resulting from the Westinghouse Electric Corp.'s "science talent search," and was graduated in 1948 with a bachelor of science degree in chemical engineering. Subsequently, he received a master of science degree in refinery engineering at Tulsa University.

Before joining LPGA, Mr. Neely served the Oil Insurance Association, Tulsa, and Marsh & McLennan, Chicago insurance firm.

Bowen joins A. G. A. New Freedom Program

CHARLES R. BOWEN, formerly with the public relations and advertising department of the Prudential Insurance Co., Newark, N. J., has joined the American Gas Association Headquarters staff, New York, as assistant manager of the New Freedom Gas Kitchen program. Mr. Bowen is experienced in contact work with national and trade magazines and in the staging of national exhibits. While employed by the Prudential Co., he took active part in the insurance firm's housing programs, and in the publicity connected with the 1952 opening of its Houston office.

The New Freedom program, operated under the Promotion, Advertising and Research

(PAR) Plan, is aimed at promoting the use of gas as a modern fuel through the display of modern, automatic gas appliances in attractive, modern kitchens created by America's leading designers.

Mr. Bowen is an alumnus of Yale University, and a member of Phi Beta Kappa.



Charles R. Bowen

Peoples ups four salesman

THE PEOPLES NATURAL Gas Co., Pittsburgh, has announced the promotions of four men to positions in the sales department.

Russell A. Hall, former dealer representative for the firm in the Wilkinsburg area, has been appointed supervisor of dealer relations. He succeeds Arthur A. Maust, who has been named special representative in charge of gas air conditioning.

Roman L. Pijanowski, former dealer representative in the Aliquippa area, and J. Richard Kelso, former sales promotion department assistant, have been appointed sales promotion representatives. Mr. Pijanowski will have charge of dealer promotion activities. Mr. Kelso will have charge of advertising.

Finn named Consolidated Natural director

FENTON H. FINN, president of New York State Natural Gas Corp., Pittsburgh, has been elected a director of Consolidated Natural Gas Co., the parent company.

Mr. Finn was graduated from Carnegie Institute of Technology in 1928 with a bachelor of science degree, and in 1942 he received his professional degree of engineer of mines from the same college. Mr. Finn is a leader in the American Gas Association's Committee on Underground storage.

He has been active in the design and development of underground gas storage pools, has directed geological work leading to the discovery of Oriskany-sand gas pools in Pennsylvania and New York, and large shallow-sand

gas reserves in Wyoming and McDowell Counties, West Virginia.

Mr. Finn has been in the employ of Consolidated System companies since 1932 serving successively as chief system geologist, and vice-president and president of New York State Natural Gas Corp., and as director of that subsidiary of Consolidated Natural since 1951.



F. H. Finn

Brooklyn Union elects Vice-President Heyke to board of directors

JOHAN E. HEYKE, JR., executive vice-president, has been named a director of The Brooklyn Union Gas Co., Brooklyn, New York.

In 1933, Mr. Heyke was graduated from Yale University with a bachelor of science degree in industrial engineering and administration. A month later he joined the Brooklyn utility as a cadet engineer, and has remained with the company ever since, with the exception of wartime service in the United States Navy.

Mr. Heyke advanced from salesman in 1934 to district representative in 1935, district house heating supervisor in 1936 and assistant personnel director in 1940.

A month after his discharge from service in 1945, he was elected an assistant vice-president of the utility. He became vice-president in 1948 and executive vice-president in 1951.

Mr. Heyke is a member of the Gas Industry Advisory Council, Petroleum Administration for Defense. He is a member also of the American Gas Association, the Society

of Gas Lighting, and Tau Beta Pi, college honorary engineering society.

He is also a member of the Brooklyn Chamber of Commerce, and its regional chairman of the 1953 Greater New York Fund Drive.



J. E. Heyke, Jr.

Pead retires from Canadian commission

WILLIAM J. PEAD, JR., consulting engineer and chief engineer of the gas department, Quebec Hydro-Electric Commission, retired after more than 30 years of service to the Canadian and American gas industries. Mr. Pead was a past-president of the Canadian Gas As-

sociation and is a member of A. G. A.

A graduate of the Massachusetts Institute of Technology, Mr. Pead served the New York Central Railroad and the Lowell (Mass.) Gas Light Co. before joining the commission's predecessor, Montreal Light, Heat & Power in

1922, as gas plant superintendent.

Successor to Mr. Pead as chief engineer is Thomas Cross, who joined the commission in 1948 from the Jersey Central Power & Light Company. Conrad Laverdure replaces Mr. Cross as assistant chief engineer.

Martin heads engineering for Canadian utility

GAVIN H. D. MARTIN has been named chief engineer of Union Gas Co. of Canada, Ltd., Chatham, Ontario. Mr. Martin will supervise and coordinate the work of all operating departments dealing with production, transmission and distribution of gas.

Mr. Martin has been with the Union Gas Co. since 1948, as senior engineer in charge

of the company's engineering department.

A native of Scotland, Mr. Martin completed his education in Canada. He was graduated from the University of Toronto in 1914 with the degree of Bachelor of Applied Science in mechanical engineering. During the war, Mr. Martin served in the Royal Canadian Navy, and after his discharge in 1945, he

joined the National Research Council's program of technical assistance to industry.

Before joining the gas company in 1948, he was affiliated with R. A. Hanright, consulting engineer of St. Catharines, where he worked on Union Gas Co. construction projects in connection with the importation of United States gas.

Gas Reserves, Production, Up

(Continued from page 5)

TABLE 3 SUMMARY OF ANNUAL ESTIMATES OF NATURAL GAS RESERVES FOR PERIOD DECEMBER 31, 1945 TO DECEMBER 31, 1952

(Millions of Cubic Feet—14.65 psia, at 60 deg. F)

Natural Gas Added During Year							
Year	Extensions and Revisions	Discoveries of New Fields and New Pools in Old Fields	Total of Discoveries, Revisions and Extensions	Net Change in Storage	Net Production During Year	Estimated Proved Reserves as of End of Year	Increase over Previous Year
1945	0	0	0	0	0	147,789,367	0
1946	a	a	17,729,152	a	4,942,617	160,575,901	12,786,535
1947	7,570,654	3,410,170	10,980,824	a	5,629,811	165,926,914	5,351,013
1948	9,769,483	4,129,089	13,898,572	51,482	6,007,628	173,869,340	7,942,426
1949	8,061,429	4,612,870	12,674,299	82,746	6,245,041	180,381,344	6,512,004
1950	9,172,381	2,877,351	12,049,732	54,301	6,892,678	185,592,699	5,211,355
1951	13,013,606	3,039,385	16,052,991	132,751	7,966,941	193,811,500	8,218,801
1952	8,934,470	5,411,043	14,345,513	198,850	8,639,638	199,716,225	5,904,725

a Not estimated.

TABLE 4 SUMMARY OF ANNUAL ESTIMATES OF NATURAL GAS LIQUIDS RESERVES FOR PERIOD DECEMBER 31, 1946 TO DECEMBER 31, 1952

(Thousands of Barrels of 42 U. S. Gallons)

Natural Gas Liquids Added During Year						
Year	Extensions and Revisions	Discoveries of New Fields and New Pools in Old Fields	Total of Discoveries, Revisions and Extensions	Net Production During Year	Estimated Proved Reserves as of End of Year	Increase Over Previous Year
1946	0	0	0	129,262	3,163,219	0
1947	192,237	59,301	251,538	160,782	3,253,975	90,756
1948	405,874	64,683	470,557	183,749	3,540,783	286,808
1949	294,211	92,565	386,776	198,547	3,729,012	188,229
1950	707,879	58,183	766,062	227,411	4,267,663	538,651
1951	648,497	75,494	723,991	267,052	4,724,602	456,939
1952	475,170	81,668	556,838	284,789	4,996,651	272,049

Michigan Consolidated promotes several executives

SEVERAL PROMOTIONS, the result of the company's retirement plan, have been made in the top executive ranks of Michigan Consolidated Gas Co., Detroit.

Hale A. Clark, who for 24 years had been chief of the industrial sales department, has been made vice-president and sales manager to succeed Newell E. Loomis. Mr. Loomis, after 44 years' service with the company has retired, and is now retained as con-



H. A. Clark



K. E. Schmidt



W. A. Rhaesa



C. E. Shields



E. G. Reynolds

sultant to the president.

Mr. Clark, the new vice-president and sales manager, was graduated from Yale in 1910

and spent 10 years with the Baltimore and Ohio Railroad and five years with the Interstate Commerce Commission before joining the gas company as industrial sales head. Mr. Clark is a member of American Gas Association and is active in its Industrial & Commercial Gas Section.

Karl E. Schmidt becomes vice-president and engineer after 17 years' service with the company. Mr. Schmidt, a mechanical engineering graduate from Wayne University in 1936, has worked for the utility since then. He began as a house heating engineer in the sales department and in 1940 he was assigned to the pressure department as a technical assistant and the following year was made assistant to the company's engineer. In 1951, he was named assistant engineer, and in 1952 engineer. Mr. Schmidt is a member of American Gas Association and serves on a number of Operating Section committees.

William A. Rhaesa, treasurer, and Carter E. Shields, controller, were both named vice-presidents.

Mr. Rhaesa started working for the company as a typist in the accounting department in 1927, following his graduation from Ford Trade School. He was advanced through various positions in the accounting department until, in 1949, he was elected treasurer of the company. Mr. Rhaesa is a member of American and Michigan Gas Associations.

Carter E. Shields entered the company's employ 33 years ago as a clerk in the accounting department and served successively as chief accountant in 1937, assistant treasurer in 1939, assistant controller in 1940, and controller in 1945. He has been active in the Accounting Section, American Gas Association and is a member of the Michigan Gas Association.

Ellsworth G. Reynolds for several years legal and administrative assistant was elected secretary to succeed L. L. Schlosser, retiring after 45 years with the company. Mr. Reynolds joined the company in 1948. He attended the University of Michigan, Detroit Institute of Technology and Detroit College of Law, from which he was graduated magna cum laude. He is a member of the State Bar of Michigan and the Detroit Bar Association.

Other promotions were Elbert E. Elliot to the position of first assistant secretary and A. V. Brashear to assistant manager of operations in the Detroit district. Both are members of A. G. A.

a) CRUDE OIL - AMERICAN PETROLEUM INSTITUTE

	(Barrels of 42 U. S. Gallons)
Total proved reserves of crude oil as of December 31, 1951	27,468,031,000
Revisions of previous estimates	+ 743,729,000
Extensions of old pools	1,509,131,000
New reserves discovered in 1952 in new fields and in new pools in old fields	496,428,000
Proved reserves added in 1952	2,749,288,000
Total proved reserves as of December 31, 1951 plus new proved reserves added in 1952	30,217,319,000
Less production during 1952*	2,256,765,000
Total proved reserves of crude oil as of December 31, 1952	27,960,554,000
Increase in crude oil reserves during 1952	492,523,000

b) NATURAL GAS LIQUIDS - AMERICAN GAS ASSOCIATION AND AMERICAN PETROLEUM INSTITUTE

	(Barrels of 42 U. S. Gallons)
Total proved reserves of natural gas liquids as of December 31, 1951	4,724,602,000
Revisions of previous estimates and extensions of old pools ..	+ 475,170,000
New reserves discovered in 1952 in new fields and in new pools in old fields	81,668,000
Proved reserves added in 1952	556,838,000
Total proved reserves as of December 31, 1951 plus new proved reserves added in 1952	5,281,440,000
Less production during 1952*	284,789,000
Total proved reserves of natural gas liquids as of December 31, 1952	4,996,651,000
Increase in Natural Gas Liquids reserves during 1952	272,049,000

c) TOTAL LIQUID HYDROCARBONS - A. P. I. & A. G. A.

	(Barrels of 42 U. S. Gallons)
(Tables 1a and 1b combined)	
Total proved reserves as of December 31, 1951	32,192,633,000
Revisions of previous estimates and extensions of old pools ..	+ 2,728,030,000
New reserves discovered in 1952 in new fields and in new pools in old fields	578,096,000
Proved reserves added in 1952	3,306,126,000
Total proved reserves as of December 31, 1951 plus new proved reserves added in 1952	35,498,759,000
Less production during 1952*	2,541,554,000
Total proved reserves of liquid hydrocarbons as of December 31, 1952	32,957,205,000
Increase in Total Liquid Hydrocarbon reserves during 1952	764,572,000

* The 1952 production figures were compiled by the committee and where necessary are based on seven months actual production with an estimate for December. Any variance between the actual production, as later reported, and the figures used herein will be compensated for through revision when the following year's reserve report is compiled. These revisions have in the past been very small.

Liability insurance

(Continued from page 24)

bility business, but other liability insurance and workmen's compensation insurance were also unprofitable. It may be worse. While these losses are being incurred, the volume of business is steadily increasing and some underwriters are finding that their capacity for the absorption of additional business is practically depleted. Under circumstances such as these, the spirit of adventure is blunted and there is no enthusiasm for tackling new problems until the present ones are solved.

The casualty insurance business has gone through these cycles before and the time will come again, and not too far off, when more American companies will turn their attention to the gas business. If an adequate American market for this business is to be established, it will be established only by virtue of the closest cooperation between the gas industry and the casualty industry. Toward this end cooperation seems essential in three areas.

In the first place, it is necessary to face the fact that the gas industry must pay for its own losses. Acceptance of that proposition implies acceptance of its corollary—that the rates for excess liability insurance must be increased. It must be obvious to all that rates charged today must be higher than those charged three years ago, five years ago or ten years ago. The current level of damage awards is substantially higher than the level of a few years ago. Insurance rates must not only reflect current loss levels but they must also anticipate future loss levels. Liability losses are deferred losses and in many cases cannot possibly be settled until considerable time has elapsed from the date of the accident which caused them. It would be imprudent to assume that damage awards a year hence will be less than the awards of today. Rates must keep pace with the trend.

There should be recognition of the fact that admitted tax-paying companies must charge rates somewhat above non-admitted non-tax-paying companies. It is to be questioned whether the situation will be helped in the long run if the purchase of insurance is controlled by the rather small savings which this situation creates.

The necessity for higher rates may not appeal too strongly to those gas companies which have had no losses in re-

cent years. Insurance rests upon the principle that the many must pay for the losses of the few and that those fortunate enough not to have accidents must pay their pro rata share of the total bill.

Secondly, utilities must accommodate themselves to higher retentions. A policy covering a loss in excess of \$10,000 or even in excess of \$20,000 is no longer a true excess policy. Injury to a single person or damage to a single house will more often than not exceed such a retention and invade the excess cover. Whenever the excess cover is called upon to contribute to relatively minor losses, it becomes increasingly difficult to underwrite it except at a very high premium. It must be remembered that true excess liability insurance must be bought and sold as catastrophe insurance and not as contributory primary insurance.

Fit coverage to need

Those companies which feel unable to bear at least the first \$25,000 of any one loss, could purchase primary insurance for as large a limit as the market will afford. The purchaser of such primary insurance may then with better success seek excess insurance which will attach on a per accident basis after the primary insurance has been exhausted.

In the third place, we must cooperate to reduce the number and severity of accidents. Considerable safety work including the preparation of safety codes has been done by the American Gas Association and by individual companies but even more can and should be done.

Some months ago our safety specialists investigated the gas company accidents reported to us in the last two years in order to determine conditions antecedent to their occurrence. It was found that there was a considerable number of accidents arising from gas line breaks due to earth movements which in turn were caused by frost, vibration, overhead pressure, settling of buildings, and other conditions. Aside from such cases, however, there were certain serious losses directly attributable to:

Failure to test new lines before putting them into operation; failure to maintain a regular inspection program; and failure to protect mains endangered by operations of other contractors.

Influenced by the findings of this analysis which, admittedly, was more general than scientific in character, we

developed a comprehensive questionnaire designed to reveal all the facts related to the ownership and operation of a gas utility company. We asked our safety specialists to have this questionnaire completed through interviews and the observation of practices at the home offices of those risks now on our books.

Certain of the deficiencies which our questionnaire developed have caused serious losses in the past. It must be assumed that failure to install the proper safeguards and inspection service will cause like accidents in the future.

Insurance underwriting is based on information. Who better than you can provide the underwriter with the true, up-to-date data which he needs for the intelligent appraisal of the gas business. I urge you to take the initiative in telling us about your business, the new developments in it, and your progress with safety codes and standards. Many of you are directors of insurance companies. Talk to the management of the insurance company on whose board you serve, explain your problems, and state your needs. You will find a ready response from the insurance companies, both individually and collectively.

The gas industry is contending with the problem of higher taxes and advancing operating costs and pursuing every proper means of controlling expenses. But it would be false economy to curtail your loss prevention activities. In the long run, insurance companies cannot pay losses arising from accidents which might reasonably have been prevented. The gas utility likewise, cannot afford to dissipate its retentions in the payment of such losses. Insurance can and will compensate for the results of those fortuitous and unforeseeable happenings that occasionally defeat man's best effort to prevent them. By eliminating preventable accidents, the gas industry will hasten the restoration of a free insurance market and gain and keep the good-will of the public whom it serves. It is essential that each company keep its inspection service and safety activities at top efficiency.

Cooperation is a two-sided affair. Upon the insurance companies rests the responsibility of furnishing protection to American business. We want to discharge that responsibility to the gas industry. With gas industry help, I feel confident that we will.

OBITUARY

Dr. John C. Parker

retired vice-president of the Consolidated Edison Co. of New York, Inc., and former president of the American Institute of Electrical Engineers, died on March 23 after a short illness. He was 73 years of age.

Dr. Parker was president of the Brooklyn Edison Co. from 1932 until 1936, when he became a vice-president of Consolidated Edison in charge of the research and development departments. He retired in 1949.

Born in Detroit, Dr. Parker received a degree in mechanical engineering from the University of Michigan in 1901. After an apprenticeship with the General Electric Co., he became an instructor in electrical engineering at Union College, Schenectady, under the late Charles P. Steinmetz.

Dr. Parker was mechanical and electrical engineer for the Rochester Railway and Light Co. for nine years, and for the next seven years was head of the department of electrical engineering at the University of Michigan. He obtained doctorates in electrical engineering from the University of Michigan and the Stevens Institute of Technology.

In 1922, Dr. Parker joined the Brooklyn Edison Co. as electrical engineer and later became vice-president in charge of all Brooklyn Edison engineering. He directed the design and construction of the Hudson Ave. electric generating station, still the largest steam-electric station in the world, with a net capacity of 914,000 kilowatts.

Dr. Parker was a fellow of the American Society of Mechanical Engineers and a member of the American Society of Civil Engineers.

In World War I, as consultant to the War Production Board, he established the Office of War Utilities under the Office of Production Management. He also was a consultant to the War Manpower Commission and the Foreign Economic Administration. He took a leading part in the World Power Conference.

Dr. Parker was associated for many years with the National Industrial Conference and the Foundation for Economic Education.

Surviving are his wife, Mrs. Elizabeth Payne Parker; two sons, John C. Parker 3d and Brooks O.C. Parker; a daughter, Mrs. Holland M. Sherwood, and eight grandchildren.

J. R. Abercrombie

retired treasurer and director of The Gas Service Co., Kansas City, Mo., died on March 7 at the age of 74, the victim of a coronary thrombosis.

Mr. Abercrombie had retired in 1950, after having served the parent utility organization, Cities Service, since 1916.

His first assignment was as secretary-treasurer of the St. Joseph Railway, Light Heat & Power Co. and the St. Joseph & Savannah Interurban Railway Company since 1916 to 1924.

In 1924, Mr. Abercrombie was named secretary of the then Union Public Service Co., Kansas City. Subsequent assignments included assistant secretary and assistant treasurer, 1925; director, 1926; treasurer, 1947.

Mr. Abercrombie had been a member and former vice-president of the National Association of Cost Accountants. Also he had been active in the American Gas Association's Accounting Section and the Missouri Association of Public Utilities.

Mr. Abercrombie is survived by his wife, Mrs. Myra Lowrie Abercrombie; a brother and three sisters.

Ward Meldrum

superintendent of production for the Michigan Consolidated Gas Co., Ann Arbor, died on February 6 at the age of 38. Death was attributed to a cerebral hemorrhage.

Associated with Michigan Consolidated since 1936, he had served as plant superintendent for the past nine years.

Mr. Meldrum had been educated at Michigan State Normal College and the University of Michigan.

Mr. Meldrum had been very active in American Gas Association. Last year, he was a member of the Accident Prevention Committee, the Operating Section's Gas Production Committee and several subcommittees. He also served church and community as a youth and athletic leader.

Surviving are his widow, Wanda Weidmann Meldrum; three sons, David, Charles and Michael; two brothers, and both parents.

W. Reed Morris

former vice-president and general manager of the gas and coke division, The Koppers Co., died on March 2 in Orange (N. J.) Memorial Hospital. Mr. Morris, who retired from business three and one-half years ago, was 68 years of age.

At the time of his retirement, Mr. Morris had served Koppers for 34 years. He joined the company in 1915 as a member of the operating department, with the task of putting new coke plants into operation.

In 1917, he became assistant superintendent of the company's Seaboard Plant at Kearny, N. J.; in 1922 he was named superintendent; and in 1926, manager.

In 1946, he was promoted to the post of vice-president and general manager of Koppers gas and coke division and in 1948, eastern representative.

Throughout his career, Mr. Morris was a recognized authority in his field. He wrote and presented many papers, among which is an authoritative treatise on carbonization of coal with blue gas and producer gas.

Mr. Morris was educated at Washington & Jefferson and Lehigh University, from which he was graduated in 1909. Before joining Koppers Co., he served on the faculty of Pennsylvania State Teachers College, as an engineer in Panama during work on the Canal project.

Mr. Morris has been, for many years, a leader in American Gas Association. In 1951, he served as chairman of the Manufacturers' Section, and during 1952 as a member of the Advisory Council.

He is also a member of the By-Products

Coke Producers Institute, of which he is a former president; the American Coke and Coal Institute; The Society of Gas Lighting; and the New Jersey State Board of Professional Engineers.

Mr. Morris is survived by his wife, Mrs. Dorothy Nix Morris; and two daughters, Mrs. Douglas C. Smith of Montclair N. J., and Mrs. W. E. Beckjord of Cincinnati, Ohio.

Guy W. Faller

former president and board chairman of the Public Service Co. of Colorado, died on February 12, at his home in Mesa, Arizona.

Mr. Faller was widely known in the utility industry after service with the Cities Service organization since 1902 when he was first employed by the Madison (Wis.) Gas & Electric Company.

From Madison, Mr. Faller was transferred to Denver in 1904, and then to Amarillo, Tex., where he served with the Amarillo companies from February, 1913, to May, 1923. He returned to Denver and remained until 1931 when he was transferred to the H. L. Doherty & Co., securities department.

Mr. Faller returned to the Public Service Co. of Colorado, February 28, 1934, where he served as vice-president and general manager until becoming president and general manager in 1940. In November, 1943, Mr. Faller became chairman of the board of directors, Public Service Co. of Colorado and served in this capacity until his retirement June 1, 1951.

During his many years in the utility industry, Mr. Faller was director of many civic and business organizations, including Electric Advisors, Inc.; Cities Service Power & Light Co.; Cheyenne Light, Fuel & Power Co.; and Public Service Company.

Mr. Faller was born April 16, 1878, at Baraboo, Wis., and attended schools there until receiving an appointment to the United States Naval Academy at Annapolis. He was graduated in 1898, and received his Navy commission.

Mr. Faller was a member of American Gas Association and the American Institute of Electrical Engineers.

He is survived by a son, Donald Dean Faller, and a daughter, Mrs. Alice Lyan Bucknum.

C. Howard Hook

president of Hook & Millier, manufacturers of gas-fired boilers, died on February 9, at his Pittsburgh home.

Mr. Hook was the pioneer of the gas-fired boiler and held numerous patents on boiler design and gas controls.

Mr. Hook organized the Peerless Heater Co., manufacturers of coal and gas boilers in 1905, and headed the organization until 1927, when he sold it. From 1929 until 1943, he manufactured gas boilers exclusively under the name of Hook Heater Company. During these years, he was a consulting engineer for many companies in the gas industry.

Mr. Hook was a life member of the American Society of Mechanical Engineers, and a member of the British Royal Society of Engineers. Mr. Hook was very active in American Gas Association, and was a member until his death.

New A.G.A. members

Holding companies

Consolidated Natural Gas Co., New York, N. Y.

(J French Robinson, President)

Manufacturer companies

American Appliance Mfg. Corp., Los Angeles, Calif.

(A. H. Sutton, President)

Canada Foundries & Forgings Ltd., Brockville, Ont., Canada

(G. H. Stevens, Manager)

Diesel Oil Burner Corp. of New York, Jamaica, N. Y.

(W. L. Riehl, Engr.)

Gasinator Manufacturing Co., Cleveland, Ohio

(A. S. Katz, President)

NEPCO, Inc., Irvington, N. J.

(Joseph B. Brown, President)

Robinson Sales & Mfg. Co., Island Park, N. Y.

(Jeremiah S. Robinson, Owner)

Individual members

William C. Agnew, Martin Oven Company, Inc., Rochester, N. Y.

Bert C. Anderson, Southern Counties Gas Co., Los Angeles

D. C. Anderson, Southern California Gas Co., Newhall, Calif.

Frank W. Anderson, Metropolitan Utilities District, Omaha, Nebraska

William Anderson, The Manufacturers Light & Heat Co., Pittsburgh, Pa.

Raymond F. Asel, The Ohio Fuel Gas Co., Columbus

Thomas S. Bacon, Lone Star Gas Co., Dallas

Wendell T. Bather, Consumers Power Co., Jackson, Mich.

Ray A. Bautts, MidSouth Gas Co., Little Rock, Ark.

R. E. Boyd, Southern California Gas Co., Riverside, Calif.

Theodore Braaten, City of Norwich Dept. of Public Utilities, Norwich, Conn.

Don William Brenner, Michigan Consolidated Gas Co., Muskegon

B. J. Brisbin, Southern California Gas Co., North Hollywood, Calif.

C. Edwin Bristol, Consolidated Gas Elec. Lt. & Pwr. Co., Baltimore, Md.

Carleton E. Brown, Southern Counties Gas Co., Los Angeles

Franklin P. Brown, Consolidated Gas Elec. Lt. & Pwr. Co., Baltimore, Md.

Albert E. Browning, Michigan Consolidated Gas Co., Detroit

Everett C. Bryan, Malden & Melrose Gas Light Co., Malden, Mass.

Ernest A. Bulpitt, Wachusett Gas Co., Leominster, Mass.

John F. Bunch, Southern Counties Gas Co., Los Angeles

Robert J. Butterworth, Central Massachusetts Gas Co., Southbridge, Mass.

J. William Carothers, Consolidated Gas Elec. Lt. & Pwr. Co., Baltimore, Md.

E. D. Carr, Southern Counties Gas Co., Los Angeles

George W. Cawthorne, Suburban Gas & Electric Co., Revere, Mass.

R. J. Charlton, Southern California Gas Co., Northridge, Calif.

M. M. Chesley, Rheem Manufacturing Co., South Gate, Calif.

Herbert D. Clay, Iroquois Gas Corporation, Buffalo, N. Y.

Donald M. Clayton, Gas Consumers Service, Cincinnati, Ohio

Gene Coldiron, Wedgewood Div., Rheem Mfg. Co., Newark, Calif.

Maxwell Cole, Philadelphia Electric Co., Philadelphia

Howard C. Cook, Arlington Gas Light Company, Arlington, Mass.

Floyd R. Cramer, Southern Counties Gas Co., Blythe, Calif.

Charles H. Crass, Consolidated Gas Elec. Lt. & Pwr. Co., Baltimore, Md.

Milton Cronenberg, Western Ashley Minerals Limited, Toronto, Ont., Canada

Herbert C. Darroch, Moffats Limited, Weston, Ont., Canada

Mrs. Kathryn F. Davis, Southern Counties Gas Co., Los Angeles

J. W. DeFever, Southern Counties Gas Co., Los Angeles

L. P. Derrick, Southern California Gas Co., Burbank, Calif.

Stephen H. Dillon, Brooklyn Borough Gas Co., Brooklyn, N. Y.

Robert B. Dixon, Southern Counties Gas Co., San Pedro, Calif.

Edward C. Duffy, Long Island Lighting Company, Mineola, N. Y.

Joseph Dunne, Trageser Copper Works, Inc., Maspeeth, L. I., N. Y.

Pierce G. Ellis, Wisconsin Public Service Corp., Milwaukee

Andrew A. Engelhardt, Eclipse Fuel Engineering Co., Chicago

William M. English, Southern Counties Gas Co., Corona del Mar, Calif.

Robert R. Evans, Scranton-Spring Brook Water Service Co., Wilkes-Barre, Pa.

Hugh M. Fitzpatrick, Michigan Consolidated Gas Co., Detroit

John L. Fogarty, Southern Counties Gas Co., Los Angeles

Charles H. Fowx, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.

William G. Frye, Gas Consumers Service, Dayton, Ohio

L. M. Glass, Southern California Gas Co., Los Angeles

C. F. Graeber, Southern California Gas Co., Glendale, Calif.

Don A. Hardesty, Natural Gas Pipeline Co. of America, Chicago

Raymond J. Hardy, Public Service Electric & Gas Co., New Brunswick, N. J.

B. R. Harvey, Niagara Mohawk Power Corp., Schenectady, N. Y.

Maurice L. Hatch, Arlington Gas Light Co., Arlington, Mass.

William C. Hayes, Southern Counties Gas Co., Pasadena, Calif.

R. C. Hazlett, Minneapolis Gas Co., Minneapolis

George A. Heisch, Consolidated Gas Elec. Lt. & Pwr. Co., Baltimore, Md.

Fred H. Herrlein, Jr., Southern Counties Gas Co., Orange, Calif.

Richard P. Hill, MidSouth Gas Co., Little Rock, Ark.

Vincent T. Horncastle, Southern Counties Gas Co., Santa Ana, Calif.

Douglas E. Hughes, Southern Counties Gas Co., Los Angeles

Julia D. Hunter, Lone Star Gas Company, Dallas

Stuart W. John, Commonwealth Services Inc., New York

Edward G. Johnson, Public Service Electric & Gas Co., Newark, N. J.

O. C. Johnson, Jr., Carlon Products Corp., Cleveland, Ohio

William Joneli, Southern California Gas Co., Compton, Calif.

B. R. Jones, Carter-Jones Co., Los Angeles

Edward Kaminski, Southern Counties Gas Co., Arcadia, Calif.

John F. Kavanagh, Indiana Gas & Water Co., Inc., Indianapolis

Miles M. Klein, Gas Purifying Materials Co., Inc., Long Island City, N. Y.

Richard F. Kruger, Brooklyn Borough Gas Co., Brooklyn, N. Y.

Leslie W. Larson, Northern States Power Co., St. Paul, Minn.

Stanley J. Lassere, Southern Counties Gas Co., Los Angeles

Jack R. Leman, Southern Counties Gas Co., Los Angeles

Peggy J. Lewis, Michigan Consolidated Gas Co., Detroit

James J. Lilly, Southern Counties Gas Co., Baldwin Park, Calif.

W. N. Lindblad, Pacific Gas & Electric Co., Emeryville, Calif.

Ernest R. Long, Southern Counties Gas Co., Santa Ana, Calif.

Robert E. McEldowney, Jr., United Fuel Gas Co., Charleston, W. Va.

John D. McKechnie, Public Service Commission of N. Y., New York

H. E. McMillan, Southern California Gas Co., Burbank, Calif.

Hugh C. McPherson, Michigan Consolidated Gas Co., Detroit

Malcolm C. Macauley, Gloucester Gas Light Co., Gloucester, Mass.

P. S. Magruder, Jr., Southern California Gas Co., Los Angeles

Joseph A. Manning, Lawrence Gas & Electric Co., Lawrence, Mass.

Frank W. Marx, Michigan Consolidated Gas Co., Detroit

Frank G. Mayer, Northern States Power Co., St. Paul, Minn.

William A. Miller, Jr., Long Island Lighting Co., Mineola, N. Y.

Leroy S. Moore, Beverly Gas & Electric Co., Beverly, Mass.

Wilder Moore, Malden & Melrose Gas Light Co., Malden, Mass.

Edward W. Morehouse, General Public Utilities Corp., New York

Edwin S. Moreland, Carlon Products Corp., Cleveland, Ohio

Thomas A. Morgan, Southern Counties Gas Co., Covina, Calif.

William K. Murray, Malden & Melrose Gas Light Co., Malden, Mass.

Albert E. Myers, The Cincinnati Gas & Electric Co., Cincinnati

Charles A. Nagle, Southern California Gas Co., Glendale, Calif.

George M. Nash, Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y.



1953

APRIL

- 7-8 • A. G. A. Research and Utilization Conference, Hotel Statler, Cleveland, Ohio.
- 9-10 • Fifth National Personnel Conference of the Gas Industry, Edgewater Beach Hotel, Chicago, Ill.
- 13-15 • A. G. A. Sales Conference on Industrial and Commercial Gas, Hotel Warwick, Philadelphia, Pa.
- 13-15 • A. G. A. Purchasing and Stores Conference, Schroeder Hotel, Milwaukee, Wis.
- 13-16 • A. G. A. Distribution, Motor Vehicles and Corrosion Conference, Hotel Sherman, Chicago, Ill.

- 16-18 • Florida-Georgia Gas Association, Hotel Biltmore, Palm Beach, Fla.
- 20-22 • National Conference of Electric and Gas Utility Accountants, Hotel Sherman, Chicago, Ill.
- 21-23 • Southwestern Gas Measurement Short Course, University of Oklahoma, Norman, Okla.
- 23-24 • Indiana Gas Association, Annual Convention, French Lick Springs Hotel, French Lick, Ind.
- 27-29 • Mid-West Regional Gas Sales Conference, Edgewater Beach Hotel, Chicago, Ill.
- 30-May 1 • A. G. A. Transmission and Storage Conference, Edgewater Beach Hotel, Chicago, Ill.

MAY

- 4-5 • Eastern Natural Gas Regional Sales Conference, Hotel William Penn, Pittsburgh, Pa.
- 4-6 • LPGA Annual Convention, Conrad Hilton Hotel, Chicago, Ill.
- 4-8 • A. G. A. Industrial Gas School, Sheraton Cadillac Hotel, Detroit, Mich.
- 7-8 • Public Utilities Advertising Association, Hotel Chase, St. Louis, Mo.
- 11-13 • Southern Gas Association, Annual Convention, Jung Hotel, New Orleans, La.
- 11-15 • National Restaurant Association, Annual Convention & Exposition, Navy Pier, Chicago, Ill.

- 11-15 • National Fire Protection Association, Annual Convention, Edgewater Beach Hotel, Chicago, Ill.
- 11-15 • National Restaurant Convention and Exposition, Navy Pier, Chicago, Ill.
- 12-14 • Pennsylvania Gas Association Annual Convention
- 14-23 • International Petroleum Exposition, Tulsa, Okla.
- 20-22 • GAMA Annual Meeting, The Greenbrier Hotel, White Sulphur Springs, W. Va.
- 25-27 • A. G. A. Production and Chemical Conference, Hotel New Yorker, New York City
- 28-29 • The Natural Gas and Petroleum Association of Canada, London, Ontario

JUNE

- 1-4 • Edison Electric Institute, Atlantic City, N. J.
- 14-18 • Canadian Gas Association, Windsor Hotel, Montreal, Canada.
- 22-23 • Michigan Gas Association, Grand Hotel, MacKinac Island, Mich.
- 23-26 • American Home Economics Association, Kansas City, Mo.
- 29-30 • A. G. A. New York-New Jersey Regional Gas Sales Conference, Monmouth Hotel, Spring Lake Beach, N. J.

William H. Neal, Consolidated Gas Elec. Lt. & Pwr. Co., Baltimore, Md.
 Donald C. Neill, Southern Counties Gas Co., Los Angeles
 Gerhard W. Neilson, Southern Counties Gas Co., Los Angeles
 Marshall E. Nelson, Southern Counties Gas Co., Santa Ana, Calif.
 John B. O'Connor, Dresser Industries, Dallas, Texas
 Edward M. Osborn, Southern Counties Gas Co., Los Angeles
 Charles Y. Osborn, Long Island Lighting Co., Mineola, N. Y.
 Edward R. Page, Southern California Gas Co., Oildale, Calif.
 Peter Pendry, Southern California Gas Co., Los Angeles
 Don J. Peterson, Southern Counties Gas Co., Los Angeles
 Joseph H. Pfister, Consolidated Gas Elec. Lt. & Pwr. Co., Baltimore, Md.
 Hendy J. Phelan, Gas Consumers Service, St. Louis, Mo.
 Marion E. Pierce, The Ohio Fuel Gas Company, Columbus
 H. V. Plate, Middle West Service Company, Chicago
 Walter S. Prendergast, Carlon Products Corp., Cleveland, Ohio
 John D. Price, The Colorado Fuel & Iron Corp., Pueblo
 William Rae, Michigan Consolidated Gas Co., Detroit
 George K. Reed, Southern California Gas Co., Los Angeles
 Richard J. Reed, The North American Mfg. Co., Cleveland, Ohio

Ellsworth G. Reynolds, Michigan Consolidated Gas Co., Detroit
 F. H. Reynolds, Metropolitan Utilities District, Omaha, Nebraska
 L. T. Rice, Southern California Gas Co., Los Angeles
 Patrick J. Rice, MidSouth Gas Co., Little Rock, Ark.
 John A. Robertshaw, Jr., Robertshaw-Fulton Controls Co., Greensburg, Pa.
 Warren A. Romsos, Southern California Gas Co., North Hollywood, Calif.
 Richard H. Root, Southern California Gas Co., Glendale, Calif.
 John M. Rutherford, The Ohio Fuel Gas Co., Columbus
 W. D. Ryan, Magic Chef, Inc., Los Angeles
 Carl Sahler, Thatcher Furnace Co., Garwood, N. J.
 Oscar R. Schneider, Brooklyn Borough Gas Co., Brooklyn, N. Y.
 W. A. Scully, Norwalk Valve Co., South Norwalk, Conn.
 W. R. Shorrock, Gas Consumers Service, Cleveland, Ohio
 Charles L. Silvius, South Jersey Gas Co., Millville, N. J.
 W. D. Simonsen, Southern Counties Gas Co., Los Angeles
 Jean E. Simpson, Southern Counties Gas Co., San Gabriel, Calif.
 L. E. Slade, Iowa Power & Light Company, Des Moines
 Alexander Smith, Owens, Libbey Owens Glass Dept., Charleston, W. Va.
 Burton R. Smith, Central Massachusetts Gas Co., Webster, Mass.

Carl Smith, Southern California Gas Co., Los Angeles
 Martha F. Smith, Southern Counties Gas Co., Los Angeles
 Howard O. Spaulding, Southern Counties Gas Co., Los Angeles
 Alvan H. Stack, The Tampa Gas Company, Tampa, Florida
 Alfred A. Storey, Jr., Southern Counties Gas Co., Montebello, Calif.
 Donald F. Sullivan, Southern Counties Gas Co., Los Angeles
 Carl E. Swing, Southern California Gas Co., Colton, Calif.
 Ernest H. Taylor, Southern Counties Gas Co., Blythe, Calif.
 C. E. Teagardner, Gas Consumers Service, Columbus, Ohio
 John C. Terry, Southern Counties Gas Co., Pomona, Calif.
 Edward G. Twohey, Salem Gas Light Co., Malden, Mass.
 George M. Wack, Southern California Gas Co., Glendale, Calif.
 J. D. Wallin, Southern Counties Gas Co., Santa Ana, Calif.
 Harold S. Weatherby, Rochester Gas & Electric Corp., Rochester, N. Y.
 Carl R. Wessling, Cincinnati Gas & Electric Co., Cincinnati
 William J. White, Southern California Gas Co., Los Angeles
 F. A. Williamson, Southern Counties Gas Co., Los Angeles
 Harold E. Wilmoth, Consolidated Gas Elec. Lt. & Pwr. Co., Baltimore
 Bob Wilson, Southern Counties Gas Co., Santa Ana, Calif.

Personnel service

SERVICES OFFERED

Sales Executive—Broad, top-flight sales-merchandising experience selling industrial users, distributors, consumers—in the fuel, heating and air-conditioning fields. Skilled in training and directing salesmen—productively; proved results planning, directing, coordinating profit-producing sales, sales promotion and advertising programs. Creative, aggressive, keyed to the tempo of modern merchandising. 1724.

Comptroller - Budget Director - Administrator—Presently employed with 15 years of responsible experience in budget analysis and administrative methods, tax and governmental relations; office and hospital management. College education and graduate studies. 1725.

Engineer—Graduate M.E., married. Thoroughly experienced in all phases of gas distribution at all pressures. Natural, manufactured or mixed gas. Experience in design, operation and supervision of distribution facilities as meters, mains, holders, customer service, etc. Knowledge of industrial, commercial as well as domestic application of gas. Experienced in design and execution of conversion to natural gas in large and small properties. 1726.

Gas Engineer—Capable of assuming administrative responsibilities in construction and operation of gas utility. 17 years experience in production, transmission, and distribution (some storage) with large gas utility. 6 years experience with regulatory work-rates, rate of return, construction, etc. Experience in teaching and writing on engineering subjects. Permanently employed, inquiries confidential (46). 1727.

Comptroller-Treasurer or Assistant—Fifteen years' experience in accounting, financial, rate and economic areas of gas and electric utilities located in east and middle west. Presently Assistant to (Financial) Vice President, responsible systems and procedures. MBA Harvard Business plus AB, mathematics, statistics; finance, economics, and accounting. Locate anywhere U. S. Married, two sons (37). 1728.

Consulting Service—Available to gas companies who desire to improve safety experience and employee relations. Twenty years successful experience in gas safety work, member of American Society of Safety Engineers. Services available July 1, 1953; however, will discuss your problems prior to that date. 1729.

Accountant—Chief Accountant of large utility type organization located outside United States desires position in United States. Over twenty years accounting and statistical experience, including administration, budget preparation

and control over expenses, analyses and revisions of accounts and reports. Graduate eastern college, married (45). 1730.

Assistant to Gas Company Executive—More than 30 years' experience in operation and construction work of the gas industry. Extensive administrative experience in district management, rate matters, materials procurement and stores management and systems. Broad contacts with industries serving the gas industry. Background in production, distribution, transmission and storage. 1731.

Utilization and Development Engineer—Graduate mechanical engineer, married. Desires association with manufacturer located in Los Angeles area. Twelve years' experience in large eastern utility in industrial and commercial gas utilization. Experience includes special burner and furnace design, thorough knowledge of control systems including electronic type and combustion characteristics of manufactured, natural and mixed gases. 1732.

Sales and Product Development Engineer—Heating and air conditioning expert. Has held positions of top responsibility with successful record of accomplishment. Knows intimately gas and oil burner industry and personnel. Has thorough knowledge of A.G.A. and Underwriters' Laboratories and procedures. Presently in top position. Interested in a real combination engineering and sales opportunity or in developing own business as a manufacturer's agent in a suitably productive area. 1733.

Gas Engineer—Graduate M.E. 12 years' experience with natural gas utilities in pipeline, piping system, metering, and regulating station design, construction, operation, and maintenance—both transmission and distribution. Good record of cooperation with associates, ability to handle men, and sustaining customer relations. Desires opening where qualifications will be fully utilized. 1734.

Gas Utility Executive—22 years' engineering and sales management experience. Graduate engineer desires greater opportunity. 1735.

Operation Engineer—Qualified to assume responsibility for operations and construction of a natural gas company or pipe line construction project. Experience includes natural gas distribution engineer, construction management engineer and geodetic engineer. At present the commanding officer of a geodetic unit supervising the operations of various contracts in the Far East. Available June 1953. 1736.

Superintendent—Man with long experience with manufactured gas plant, distribution and serv-

ice. Also natural and propane gases. Wishes permanent employment. At present employed. Can come well recommended. Distribution and service preferred. 1734.

Gas Appliance Adjuster—25 years' experience on domestic, commercial, restaurant appliances on manufactured, natural and propane gases. Would like to make connections with company supplying bottle gas territory, or any appliance adjusting company offering steady, profitable employment. Willing to travel. 1738.

POSITIONS OPEN

Mechanical Engineer—Large manufacturing corporation has an opening in its Research Division for a graduate engineer with experience in the design and development of domestic laundry washers and dryers. Must be capable of heading department. Replies held in strictest confidence. 0682.

Manager—Manufactured Gas Utility. Administrative and sales directing abilities absolute requirements; technical background desirable. Permanent position and substantial opportunity for qualified person. Replies confidential. Submit resume of education, experience and salary requirements. 0683.

Distribution Engineer—for natural gas system in Midwest. Now serving 25,000 customers. Must be experienced in distribution engineering and operations. College graduate preferred but not essential. Give age, experience, references, salary expected. All replies held confidential. 0684.

Young Engineer with natural gas pipeline background interested in trade association work. Location—New York. 0685.

Bookkeeper-Accountant with gas utility experience. Good salary and opportunity for qualified person. Replies confidential. Reply giving age, experience, references. 0686.

Vice President and General Manager—To assume top management duties including administration, public relations and supervision of all phases of gas operations of an independent New England Gas Utility—15,000 meters—natural gas (formerly carburetted water gas). Should have considerable gas utility experience. Give complete details of personal data, training and experience. 0688.

Systems and Methods Director—Good career opportunity for man experienced in utility customer accounting. Must also have systems and methods experience, though not necessarily in the utility industry. Age 26 to 45. Natural gas utility company engaged in production, transmission, and distribution in four states. Offer a full program of employee benefits. 0689.

Size is no bar

(Continued from page 14)

Many times changes may be made in the program to adjust it to the changing conditions or to fit company policies. Most employees will enjoy making it a game. Many stunts can be employed to make the game interesting. One small company formed two teams to compete

over a period of time. The team having the best safety experience enjoyed a fine steak or chicken dinner served by the losing team who were served only beans.

The benefits of a sound safety program outweigh the cost and effort needed to make it productive of the many advantages resulting. Among these benefits are improved operations, reduced costs, happier employees, better public relations, reduced medical expense, reduced premiums on compensation insurance and your company will be known as a good place in which to work.

and theater banners are necessary. For the show itself, every possible trick—lots of color, plenty of stage props, a splattering of roadshow techniques—must be used. There is no business like show business, and you don't need two heads to be in it, but an extra one does help!

Cooking schools are not a waste of time, effort and money, when we do these essential things: create a present desire and a future demand for modern automatic gas appliances and present tangible evidence of the utility's willingness to cooperate with gas appliance dealers.

Take a tip from Hollywood. Promote your audience, please them, and convince them. The results are automatic—you'll keep your present customers and more important, make new ones.

Public speaking

● If you attempt to be brief (in speeches) you will be misleading. If you attempt to be complete, you will be uninteresting—*Andre Kaminker, interpreter on World Town Hall tour.*

Dramatize—Capitalize

(Continued from page 20)

All types of promotion are valuable. In order to draw an audience, newspapers, prizes, broadsides, shadow boxes

A.G.A. Advisory Council

H. BRUCE ANDERSEN...Philadelphia, Pa.
R. G. BARNETT...Portland, Ore.
WALTER C. BECKJORD...Cincinnati, Ohio
A. M. BEEBEE...Rochester, N. Y.
N. B. BERTOLETTE...Hartford, Conn.
E. G. BOYER...Philadelphia, Pa.
A. F. BRIDGE...Los Angeles, Calif.
STUART M. CROCKER...New York, N. Y.
ALAN A. CULLMAN...New York, N. Y.
HUGH H. CUTHRELL...Brooklyn, N. Y.
J. F. DONNELLY...Evansville, Ind.
HENRY FINK...Detroit, Mich.
J. N. GREENE...Birmingham, Ala.
OLIVER S. HAGERMAN...Charleston, W. Va.
D. P. HARTSON...Pittsburgh, Pa.
ROBERT W. HENDEE...Denver, Colo.
STANLEY H. HOBSON...Rockford, Ill.
W. M. JACOBS...Los Angeles, Calif.
GORDON LEFEBVRE...Mount Vernon, Ohio
F. H. LERCH, JR...New York, N. Y.
F. A. LYDECKER...Newark, N. J.
RALPH F. MCGLONE...Cleveland, Ohio
N. C. MCGOWEN...Shreveport, La.
RONALD A. MALONY...Bridgeport, Conn.
JAMES S. MOULTON...San Francisco, Calif.
E. P. NOPPEL...New York, N. Y.
ROBERT W. OTTO...St. Louis, Mo.
C. P. RATHER...Birmingham, Ala.
HUDSON W. REED...Philadelphia, Pa.
JOHN A. ROBERTSHAW...Youngwood, Pa.
W. H. RUDOLPH...Newark, N. J.
LOUIS B. SCHIESZ...Indianapolis, Ind.
W. J. SCHMIDT...Mineola, N. Y.
ALVAN H. STACK...Tampa, Fla.
ALLYN C. TAYLOR...Reading, Pa.
E. J. TUCKER...Toronto, Ontario
CLARENCE H. WARING...Kansas City, Mo.
HARRY K. WRENCH...Minneapolis, Minn.
C. H. ZACHRY...Dallas, Texas

PAR COMMITTEE

Chairman—James F. Oates, Jr., The Peoples Gas Light and Coke Co., Chicago, Ill.

FINANCE COMMITTEE

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